

Affirmative action in the energy sector

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Executive summary

The Government of National Unity has committed itself to a path of high economic growth. Human resource development is central to this planned economic growth and development. Although its precise contribution is difficult to measure, human capital created through investments in education and the development of skills emerges as one of the most significant determinants in studies of economic growth. High levels of education, the most important element in human resource development, leads to high productivity through improvements in the ability to adopt sophisticated technology and efficient organisational structures. Education also shapes values, attitudes and behavioural patterns which are instrumental in influencing the pace and form of social and economic developments. The most rapidly growing economies have made considerable investments in education (World Investment Report, 1994).

South Africa is deficient in the area of human resource development, and is characterised by an inverse skills profile, with 76% of the workforce located in the semi-skilled/unskilled categories, compared with the international norm of 40% (Bowmaker-Falconer 1993).

As a result of the inverse skills profile, South Africa faces massive unemployment and a critical skills shortage simultaneously. The shortage of skilled, professional and managerial workers is demonstrated by the poor ratio of managers to subordinates, as well as by recent estimates that there will be 210 000 vacant management posts by the year 2000 (Leresche 1993).

The 1994 World Competitiveness Report ranked South Africa for the 'people dimension' 41st out of 41. The report, which is an annual analysis of how conducive or detrimental a country's environment is to the domestic and global competitiveness of organisations operating in a specific country, suggested that South Africa had assets which could place it among the most competitive in the world. It ranked 20th (out of 41) in 'Infrastructure', 27th in 'Science and Technology', and 29th in 'Management' (people Dynamics 1994). South Africa therefore needs to invest in appropriate education and training or it will increasingly become marginalised in the world economy. The challenge is for human resource planners to train, educate and develop sufficient numbers of South Africans to address these imbalances. The task is formidable: one-third of all black South Africans have no formal education, 80% have not been to high school (Leresche 1993), and 60% of the economically active population are functionally illiterate (Innes 1993). Affirmative action is therefore not only a political imperative: meeting the backlog is critical for the economic development and competitiveness of the country.

The legacy of discriminating against blacks and women at the workplace and in government, has meant that they have been denied the opportunity to develop the skills necessary to manage public and private sector institutions.

The paper investigates the extent to which black and women South Africans are represented in the energy sector and surveys the policy initiatives aimed at redressing the under representation of black and women staff at all levels in the energy sector.

Human resource implications of a changing policy environment

In order to contextualise the key human resource issues, Chapter One outlines the key shifts in the energy policy environment. The Government of National Unity's commitment to reconstruction and development is changing the orientation of energy policy objectives away from fuel security and self-sufficiency concerns to equity, environmental sustainability, economic efficiency and redressing gender and racial imbalances. As a consequence the energy sector faces a number of human

resource challenges. The state, the electricity sub-sector and the biomass sub-sector are dealing with the integration of institutions from the old TBVC and national states. People managing the integration process need to understand the impact of change on human resources, but also need to equip staff with skills to deal with the integration process.

Institutions like the state, Eskom and institutions in the biomass sub-sector need to shift their policy orientation towards equity ie providing access to services and to the urban and rural poor. This change in policy focus will probably require the acquisition of more appropriate skills – eg foresters need to be retrained for social forestry and policy makers need to acquire appropriate skills to develop policy in a context of equity and utility managers need to develop competencies to deliver in an environment with changing policy objectives.

The Reconstruction and Development Programme calls for minimum standards that ensure fair wages and employment conditions, as well as a health and safety system (RDP, 1994) given the nature of this industry. The call is supported by unions in the petroleum, coal, nuclear and electricity subsectors and is an area of ongoing negotiation between unions, institutions and the state.

The representation of women and black people in the sector is dismal. Increasingly institutions will be required to redress the racial and gender imbalances in the sector, within a context of an increasingly rationalised industry and skill shortages. The challenges are great, and institutions would need to use strategies which include affirmative action, adult education and training. Human resource policies need to be standardised and reviewed to identify policies and practices that act as hidden barriers to the appointment, promotion, and retention of black and women staff.

The audit of human resources in the energy sector

Data for the human resource audit was collected from the Department of Mineral and Energy Affairs, Eskom, 15 municipal electricity departments, Mossgas, Sasol, Total, Caltex, Shell, British Petroleum, Engen, Zenex, the Atomic Energy Corporation, the Nuclear Fuels Corporation, as well as the Council for Nuclear Safety. The findings revealed that:

- managerial positions were almost exclusively occupied by white men;
- white men were still predominant in supervisory/skilled positions, although more white women and black men were represented than in management; at Shell, BP and Engen black women were represented at supervisory levels;
- black women were underrepresented in the sector generally; and in the oil companies women were generally employed in supervisory/skilled and semi-skilled positions. In the nuclear industry and in the Energy Directorate and women were mainly employed in semi-skilled positions.

Affirmative action: a theoretical perspective

This chapter provides a synthesis current affirmative action debates and acts as a framework against which the affirmative action initiatives described in chapter four are analysed. It argues that affirmative action is more than a political imperative, and is necessary for the economic competitiveness of South Africa. It tries to show that affirmative action is more than the aggressive recruitment of black and women staff, which has implications beyond the human resource department. It concludes that, now more than ever, organisations and managers should be measured on their ability not only to deliver returns to shareholders, but also in terms of the results achieved in the area of people development.

Affirmative action initiatives in the energy sector

The emphasis of most of the institutions was on black staff, as opposed to women. Companies generally defined black to include African black, coloured and Asian. Those institutions which had an affirmative action policy, generally had well developed, cohesive programmes. To what extent it was effective in practice was not, however, established.

More common interventions included the creation of an environment which facilitated performance and integration; the appointment of an affirmative action manager to effect and monitor the programme; accelerated development for black staff with potential and educational training opportunities for Paterson A and B bands; preferential recruitment, selection and promotion; explicit definition of roles and responsibilities; affirmative action line function and mentorship.

Less common was the realisation that real jobs were more effective than shadow jobs, trainee positions or job rotation; that it was necessary to establish staff development as a key performance area for each manager and that managerial expectations in performance needed to be explicitly recognised.

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Introduction

South Africa is deficient in the area of human resource development, and is characterised by an inverse skills profile, with 76% of the workforce located in the semi-skilled/unskilled categories, compared with the international norm of 40% (Bowmaker-Falconer 1993). As a result of the inverse skills profile, South Africa faces massive unemployment and a critical skills shortage simultaneously. The shortage of skilled, professional and managerial workers is demonstrated by the poor ratio of managers to subordinates, as well as by recent estimates that there will be 210 000 vacant management posts by the year 2000 (Leresche 1993).

The 1994 World Competitiveness Report ranked South Africa for the 'people dimension' 41st out of 41. The report, which is an annual analysis of how conducive or detrimental a country's environment is to the domestic and global competitiveness of organisations operating in a specific country, suggested that South Africa had assets which could place it among the most competitive in the world. It ranked 20th (out of 41) in 'Infrastructure', 27th in 'Science and Technology', and 29th in 'Management' (*People dynamics* 1994). South Africa therefore needs to invest in appropriate education and training or it will increasingly become marginalised in the world economy. The challenge is for human resource planners to train, educate and develop sufficient numbers of South Africans to address these imbalances. The task is formidable: one-third of all black South Africans have no formal education, 80% have not been to high school (Leresche 1993), and 60% of the economically active population are functionally illiterate (Innes 1993). Affirmative action is therefore not only a political imperative: meeting the backlog is critical for the economic development and competitiveness of the country.

The legacy of discriminating against blacks and women at the workplace and in government has meant that they have been denied the opportunity to develop the skills necessary to manage public and private sector institutions. A study of 600 managers in 200 companies puts the percentage of African women at 0.3 %. The comparable percentages for white men and women are 88.2% and 6.0% respectively. African males occupied no more than 7% of middle and junior management positions and African women 1.4%, compared with 72% for white males and 12.6% for white women. Another alarming statistic was that African males occupied less than 17%, and African women less than 3%, of supervisory and skilled positions compared with 31% white men and 35% for white women (BMI/BMF 1993).

This paper has two objectives:

- to investigate the extent to which black and women South Africans are represented in the energy sector; and
- to survey the policy initiatives aimed at redressing the under-representation of black and women staff at all levels in the energy sector

In order to identify the human resource implications of the changing energy policy environment, Chapter One outlines the key shifts in the policy environment, gives a snapshot of the key institutions operating in the energy sector, and tries to capture the key policy issues as they relate to each sub-sector.

Chapter Two attempts to establish the extent to which women and black people are represented in the sector and the levels at which they are employed.

Chapter Three provides a synthesis of current affirmative action debate and acts as a framework against which the affirmative action initiatives described in Chapter Four are analysed.

Human resource implications of a changing energy policy environment

The energy policy environment in South Africa is undergoing significant change. The Government of National Unity's commitment to reconstruction and development is changing the orientation of energy policy objectives away from fuel security and self-sufficiency concerns to equity, environmental sustainability, economic efficiency and redressing racial and gender imbalances.

In order to understand the human resource implications of the changing energy sector, Chapter One outlines the key shifts in the policy environment, gives a snapshot of the key institutions operating in the energy sector and tries to capture the key policy issues as they relate to each subsector.

1.1 The South African energy policy environment

In the context of international sanctions, the primary concerns of the white minority government were fuel security and self-sufficiency. As a consequence, 'strategic' investments were made to expand the production of synthetic liquid fuel from the Sasol oil-from-coal production plants and to establish a new Moss gas oil-from-natural gas plant. The state also invested substantially in nuclear energy, allocating at least 70% of its annual total mineral and energy budget to the Atomic Energy Corporation (AEC). These decisions have not always been economically efficient: electricity generated by Koeberg is at present significantly more expensive than coal-derived electricity (van Horen 1994). Nor have these investments achieved self-sufficiency. Liquid fuels continued to be imported at cheaper prices, despite an international oil embargo.

The role of the state has primarily been regulatory rather than developmental. South Africa's petroleum, electricity and nuclear industries are subject to various degrees of regulation, yet very little attention was given to the energy needs of households and communities. Only 40% of South African homes have access to electricity despite the well-developed national grid and the surplus generation capacity (Trollip 1993). The majority of the urban and rural poor rely on more expensive and less convenient energy sources such as wood, coal and paraffin (Williams 1994). Furthermore, 19 000 black schools (86%) and 4 000 clinics are currently without electricity. Wood is the primary source of fuel for twelve million rural people in South Africa, yet very little progress has been made to secure the supply of fuelwood in the future (Gandar 1994). The state has now begun to develop strategies for the household sector. These include investigating electricity supply options for remote areas, and a biomass initiative (Eberhard & Trollip 1993). The electrification process will be accelerated through the Reconstruction and Development Programme which aims to electrify 2.5 million households by the year 2000 (The Reconstruction and Development Programme 1994).

Energy policy development in South Africa has been characterised by an uncoordinated and fragmented approach. This is best illustrated by the electricity and fuelwood subsectors where Eskom reports to the Public Enterprises Minister, while the Department of Mineral and Energy Affairs is responsible for policy making in the subsector. Local authorities govern the supply of electricity in municipal areas, while the Electricity Council exercises control over Eskom. In the fragmented fuelwood subsector, confusion exists at government level about which of the

Departments of Agriculture, Forestry or Mineral and Energy Affairs should take responsibility for this area (Eberhard & van Horen 1994).

There has been a lack of stakeholder involvement in the exclusive, elitist policy formulation and planning process. Stakeholders are beginning to make an input through the various forums which have emerged. The National Electricity Forum was convened in 1993 to discuss and formulate policy for the electricity sector. It brought together the leading stakeholders and it functioned as an unofficial planning body to restructure the sector (Horwitz 1994). Labour, government and business are debating deregulation of the petroleum industry in the Liquid Fuels Task Force of the National Economic Development Labour Council (previously called the National Economic Forum). Research institutions like the Energy for Development Research Centre and the Minerals Energy Policy Centre are actively contributing to the debates and building capacity in the sector. Special interest groups like the Women Energy Group have also emerged to ensure that energy policies are gender sensitive, and to ensure the increased participation of women in key policy-making structures and processes. Increasingly there will be pressure for more transparent, responsive and participatory processes. Public officials will need to be committed to the public interest and mechanisms will need to be established to ensure public accountability.

Black people were denied access to the public sector. Employment has been based on the ideological reasoning that the political destiny of blacks lay in their own areas. As a result, the staff profile of the energy directorate is unrepresentative of the population. Separate energy administrations and departments were established for the TBVC and national states. In terms of the new constitution these areas have been integrated into South Africa.

Energy policy and planning in South Africa needs to shift fundamentally. It needs to align itself with new social and economic policies aimed at reconstruction and development. Energy policy will increasingly need to:

- improve social equity by addressing the energy requirements of the poor;
- enhance the efficiency and competitiveness of the South African economy by providing low-cost and high quality energy inputs to industrial, mining and other sectors;
- work towards environmental sustainability by addressing both short-term environmental problems and planning for long-term transition towards renewable sources of energy with minimum negative environmental impact (Eberhard & van Horen 1994); and
- redress the race and gender imbalance within the sector.

1.2 Key institutions and policy issues in the South African energy sector

The South African energy sector comprises the state, parastatals such as Mossgas, Eskom, AEC, private sector institutions such as the oil companies and Nufcor, as well as labour organisations such as the Chemical Workers Industrial Union, the Mineworkers Union, the National Union of Mineworkers and the South African Municipal Workers Union.

1.2.1 The state

State involvement in the energy sector was consolidated for the first time in 1980 with the creation of the Department of Mineral and Energy Affairs (DMEA). The Energy Chief Directorate of the DMEA comprises 41 staff. It is responsible for the promotion of the optimal utilisation of energy resources and its main activities are amongst others to: advise the minister, administer specific energy acts, develop

policy and to manage the projects programme. It comprises three main directorates: Electrical Energy, Energy for Development and Transport Energy.

State involvement in the sector has been regulatory, with the DMEA having jurisdiction over the liquid fuels, electricity and nuclear subsectors. The coal sub-sector was regulated until the mid-1980s, when the state controlled the pit-head, wholesale and retail prices of coal, its distribution and export. In 1987 price control was finally abolished when the pithead price of coal was deregulated. In 1990 the DMEA abolished one of the last controls on the domestic coal industry with the lifting of the embargo on the sale of cheaper Transvaal coal in Natal. Coal export permits were abandoned after coal deregulation was completed with the Coal Resources Repeal Act No 6 of 1992.

South Africa's remaining energy statutes are as follows:

- Liquid Fuel and Oil Act, No 49 of 1947
- Central Energy Fund Act, No 38 of 1977
- Petroleum Products Act, No 120 of 1977
- Electricity Act, No 41 as amended in 1994
- Eskom Act, No 40 of 1987
- Nuclear Energy Act, No 131 of 1993

The first three Acts determine the responsibility of the state in respect of the acquisition, refining, price determination and distribution of liquid fuels. The translation of these acts into practice meant that nearly every aspect of South Africa's petroleum industry was subject to government regulation, starting with crude oil procurement through to minimum services that should be offered at a petrol station.

The Electricity Act defines the structure, functions and responsibilities of the Electricity Control Board and assigns the sole right of electricity supply within municipal boundaries to local government, although these authorities may cede this right to other agencies subject to the approval of the Control Board. The 1987 Eskom Act defines the responsibilities of Eskom to supply electricity 'in the most cost effective manner' and also defines the structure and responsibilities of the Electricity Council and Eskom's Management Board. It gave the Minister more authority than previously and downgraded the power of the Electricity Control Board over Eskom (Horwitz 1994).

The Nuclear Energy Act brought all nuclear activities funded by the state under the control of the AEC with the exception of the independent Council for Nuclear Safety (Eberhard & van Horen 1994).

Key issues

Some key energy issues that affect the state are:

- the facilitation of the RDP objectives;
- the restructuring of the Department of Mineral and Energy Affairs to facilitate and implement new policy directives, especially equity;
- the integration of energy in rural and regional socio-economic development;
- the integration of the different pre-April 1994 energy departments and administrations of the TBVC and national states;
- the expected change of the DMEA's mandate, especially regulation of electricity and liquid fuels;
- the involvement of stakeholders in policy formulation, for example through a National Energy Policy Forum;
- international and regional co-operation: ie membership of SADC, International Energy Association (IEA) etc, compliance with international standards, identification of areas of interest and co-operation;

- energy databases and integrated energy planning (Kriel 1994); and
- the restructuring of human resource policies to ensure that discriminatory practices are ended and that the staff composition of public sector institutions reflect the national distribution of race and gender.

Human resource implications

The key human resource implications include the following:

- a lack of institutional capacity to facilitate the above;
- the extension of capacity needed in policy analysis and planning, as well as data management and analysis;
- the need for specific training to address the above;
- the need for a vigorous affirmative action programme; as well as
- training for the reorientation of existing staff.

1.2.2 Labour

Labour Relations in South Africa

The Labour Relations Act is the law regulating industrial relations. It grew out of legislation which originated at the turn of the century, when the state was trying to incorporate, regulate and control organised white labour. Enacted as the Industrial Conciliation Act in 1924, the law:

- excluded African workers from its scope;
- provided for voluntary bargaining but made industrial action illegal unless specified procedures were followed; and
- was aimed only at 'organised industries'.

The 1924 Act remains the core of today's labour relations. In 1980 the Act was deracialised and union rights were extended to African workers as a result of the Wiehahn Commission. In the late 1980s and 1990s, some coverage was extended to certain state employees as well as farm and domestic workers (Baskin 1993).

During the 1980s, South Africa was one of the few countries where unions grew rapidly. Trade union membership increased from 700 000 in 1979 to over 2.7 million in 1991. Membership grew fastest in the 'progressive unions,' those that today are affiliated to the Congress of South African Trade Unions (Cosatu) and the National Council of Trade Unions (Nactu). Cosatu, the largest trade union federation, has over 1.3 million members. The federation has fourteen affiliated trade unions. Nactu is the second largest federation of black workers, with about 327 000 members in 24 affiliate unions; it is strongest in the chemical, construction and transport sectors (Harber & Ludman 1994).

The National Economic Development Labour Council and the National Electrification Forum were signs of a trend towards greater, structured, involvement by unions in a range of issues. The trend towards active engagement is also happening at industry level. Unions are engaged in talks concerning the restructuring of their industries, tariffs and import policies, profit-sharing schemes, training and grading systems, and even the employment structure of the civil service. The trend is towards corporatism or 'bargained corporatism'. This concept suggests an agreed arrangement in which all parties maintain their independence, but accept a framework within which they will reach consensus. For the union movement corporatism involves compromise, a share in decision making and some responsibility for economic policy (Baskin 1993). Presently the debate is around whether or not corporatism can in fact succeed and whether it is the best route for organised labour.

Labour organisations in the energy sector

There are many labour institutions in the energy sector. With the exception of the Mineworkers' Union and the Amalgamated Engineering Union, trade unions and associations are open to all races. The apartheid legacy will, however, continue for

a period of time, with trade unions generally being organised along the lines of race and skill levels.

The Chemical Workers Industrial Union (CWIU), which organises workers in the chemical industry (including the petroleum, glass, plastics, chemical and rubber industries), has 42 000 members. The CWIU organises workers at Sasol, BP, Shell, Total, Engen, Moss gas, Caltex, Zenex and the AEC.

The key issues identified by CWIU were centralised bargaining, health and safety, adult basic education, restructuring the union, as well as working conditions. Of these, health and safety was considered the most important, because of the nature of the industry. Explosions, mercury poisoning and dermatitis are among the accidents and illnesses prevalent in the industry. CWIU is attempting to play a role in changing the health and safety law to focus on human beings rather than machines and is using the new health and safety legislation to build structures on the shopfloor.

The union is also engaged in a campaign to create a National Training Board, to ensure that certificates received by workers for attending adult education programmes are recognised throughout the country. It has also articulated the need for programmes which advance the careers of women and it has made progress in securing suitable maternity benefits at a number of companies.

The National Union of Metal Workers of South Africa (Numsa), the country's biggest trade union, has about 273 000 members in the metal and engineering, tyre, automobile and motor sectors. It organises workers at Eskom, with the exception of the Koeberg nuclear power station, where workers are organised by the National Union of Mineworkers.

In 1993 the trade union unveiled a three-year bargaining strategy, setting a new mould for wage bargaining in the country and moving away from the annual round of wage offers, demands and disputes. Instead it set a goal of securing a 15% wage increase over three years, as well as a plan for restructuring work organisation and training schemes for its members. The union increased its subscription costs in an effort to wean itself from foreign funding. Numsa is active in a number of negotiating forums and the union was instrumental in the establishment of the electrification forum (Harber and Ludman 1994).

The National Union of Mine Workers (NUM), with 270 000 members, is Cosatu's second-largest affiliate. It was formed in 1982 under the auspices of the black union federation, the Council of Unions of South Africa (Cusa). The NUM broke with Cusa to become one of the founder members of the non-racial Cosatu in November 1985 (Harber & Ludman 1994). It organises workers on the gold mines, the coal mines, at Eskom and at Sasol.

In response to massive retrenchments in 1991, the NUM pushed hard for an industry summit, involving representatives from black and white labour, management and the government, to map out the future of mining. It broke new ground by entering profit-sharing agreements with employers. The union has campaigned strongly for improved health and safety conditions on the mines and for adequate compensation for mineworkers. It was instrumental in the Chamber of Mines' appointment in April 1992 of a judicial inquiry into laws affecting mine safety in the mining industry and in the government's appointment in June 1993 of a commission of inquiry into health and safety in the mining industry (Harber & Ludman 1994).

The Council of Mining Unions (CMU) comprises five artisan unions and the Mineworkers Union. The five artisan unions traditionally represented the white skilled workforce. The 45 000-strong *Mineworkers Union (MWU)* is the strongest 'white' trade union in the country, organising in electricity, mining, water provision and

industry. At its annual congress in 1993 it resolved to mobilise all whites opposed to a 'communist controlled government'. It came out with resolutions against unemployment, early retirement packages, voluntary retrenchment, affirmative action, the extension of rights to domestic workers, and the working conditions of white workers (*South African Labour Bulletin* 1993). The MWU organises at Eskom, the AEC and at Sasol.

Official associations together form a bargaining unit of specialist skill and supervisory employees. They are the Underground Officials' Association (UOA), Mine Surface Officials' Association (MSOA) and South African Technical Officials' Association (SATO). In 1992, this unit had a combined membership of 23 000. The associations have closed agreements with the Chamber of Mines (Chamber of Mines 1992).

At least eighteen employee organisations, which mainly negotiate around conditions of employment, operate in the *public sector*. The key organisations are: the Public Servants Association of South Africa (PSA), the Public League of South Africa (PSL), the Institute of Public Servants (IPS), and the Public Servants Union. These employee organisations historically represented white, coloured, black and indian staff in the public sector.

The Public Service Labour Relations Act 1993 established a public service bargaining council. There is a chamber at central level and separate departmental chambers. The Transkei Public Servants Association (Trapsa), Gazankulu Public Servants Association (Gapsa) and the Kwazulu Natal Public Servants Association were not recognised by the chamber of the public service bargaining council at central level, nor were they governed by the Public Service Labour Relations Bill. In terms of the new (interim) Constitution these unions are now covered by the Public Service Labour Relations Act.

The following unions are also recognised in the sector: South African Chemical Workers Union; South African Iron, Steel and Allied Industries Union; the AEC Staff Association, Amalgamated Engineering Union of South Africa; SA Boilermakers, Iron and Steel Workers, Shipbuilders and Welders Society; SA Electrical Workers' Association; Engineering Industrial and Mining Workers Union of South Africa; South African Municipal Workers Union, and Eskom Employees Association.

Key issues

- stakeholder representation in energy policy formulation and planning at a national level;
- improved health and safety and adequate compensation;
- haemorrhaging of the union leadership to the Government of National Unity;
- union independence and its relationship with government;
- adult education; and
- restructuring of the Public Service Labour Relations Act.

Human resource implications

- development of new union leadership;
- research capacity necessary in policy planning and analysis;
- capacity building around health and safety issues; and
- educational opportunities for employees.

1.2.3 The South African electricity industry

The electricity subsector comprises Eskom, local municipal authorities, a few regional services councils, and joint venture companies. It provides employment for approximately 59 500 people.

Eskom, the national utility, is the largest and most significant electricity institution, with total assets of R44.4 billion, turnover of 13.8 billion, a net income of R1.6 billion and a generating capacity of 39 746MW in 1993 (Eskom 1993). In 1993 it employed 40 128 staff, with around 16 000, 10 500, and 13 500 being employed in distribution, transmission and generation respectively. This is down from a total of 66 000 staff in 1985.

Eskom is controlled by an Electricity Council which is appointed by the state. The composition of the Council recently changed to include major stakeholders such as black civic organisations and trade unions. This followed negotiations between the government and the democratic movement (Mokhobo 1993). A management board, headed by a Chief Executive, is responsible for its day-to-day running. The Board is appointed by the Council.

The Electricity Control Board was instituted in 1958 and its functions were further defined by the Electricity Act of 1987. The Board comprises between seven and nine members appointed by the Minister. Its jurisdiction extends to the electricity supply by private undertakings and to local authorities which supply beyond the areas of their jurisdiction (Eberhard & van Horen 1994).

Although Eskom is a public corporation, it is largely self-financing, through internal reserves and external borrowing. An exception regarding this financial autonomy occurred in the form of ad hoc subsidies made available by the DMEA over the years for the electrification of remote commercial farms (Eberhard & van Horen 1994).

The electricity supply industry can be divided into three functional sectors: generation, transmission and distribution.

The generation sector comprises bodies generating electricity from thermal, nuclear and hydroelectric sources. While Eskom does not have an exclusive right to generate electricity, it has a practical monopoly in bulk electricity sales. In 1991 it supplied 98% of electricity in South Africa (Steyn 1994).

Eskom operates the integrated national high voltage transmission system and supplies directly to large consumers such as mines, mineral beneficiators and commercial farmers, and to a limited number of residential consumers. Mining and industry consume just under 70% of the electricity produced in South Africa, while the domestic and commercial sector consume 15.6% and 5.5% respectively. Eskom also sells electricity in bulk to local municipal authorities who, in turn, distribute to industry, commerce and residences within their municipal boundaries (Steyn 1994).

Compared to the effectively organised generation and transmission sectors, the distribution sector is highly fragmented, and its operation is the source of many problems in the supply of electricity to end-consumers. This is largely a result of fragmented governance and specifically the role that local government has played within the supply of electricity (Steyn 1994). The electricity distribution industry in South Africa, which employs around 35 600 people, comprises 450 electricity distributors, each with its own staff, policies, and tariffs (Nelf 1993).

The key issues

- a new system of governance;
- transformation of the Electricity Control Board into a regulator over the entire ESI;
- restructuring the electricity distribution industry;
- a national electrification programme;
- national electrification planning;
- electricity pricing;
- electrification financing;

- demand side management
- the politicisation of electrification and the low levels of payment;
- employment equity and affirmative action; and
- increased public transparency.

The human resource implications

- need for skilled and experienced, but representative, regulator;
- restructuring of human resource policies;
- capacity building amongst key stakeholders to feed into the policy process;
- staffing of national electrification planning facility;
- integration of staff from hundreds of distributors into national distributor; and
- labour-based electrification.

1.2.4 The South African petroleum industry

The South African oil industry has an annual turnover of R23 billion. In the 1992/93 tax year, it contributed R8 billion or 10% of state revenue, employed 110 000 people, saved R1.8 billion in foreign exchange earnings by refining locally, and saved a further R600 million in foreign exchange through exports (*Fast facts on the South African Oil industry* 1993).

The petroleum sector is highly regulated and is made up of seven private sector companies and nine brands. These can be segmented into the following categories:

- The first category consists of four large brands, Engen, Shell, Caltex and BP, whose individual shares of the market range from 15-20%. They also own refineries. Engen is the only locally-owned company, with Gencor controlling 62% of the shares; Shell, Caltex and BP are Anglo-Dutch-, American- and British-owned respectively.
- The second category comprises the smaller brands, including Total, Zenex, Trek and Sonap. These latter two brands are now owned by Engen. The French-owned Total holds 57% of the capital of Total South Africa (Pty) Ltd, with the remaining 43% shared by South African interests such as Rembrandt and Old Mutual.
- The third category of oil companies comprises the synfuel industry and is made up of two companies (Sasol and Moss gas) producing petroleum products which are marketed by the above oil companies, although Sasol also markets petrol through the blue pumps situated on the forecourts of other petrol retailers. The two use different inputs to produce petroleum products: Sasol uses coal and Moss gas uses natural gas. Both currently need government tariff protection as synthetic production is more expensive than crude oil refining at prevailing world crude oil prices. Sasol shares a crude oil refinery (Natref) at Sasolburg with Total (McGregor 1994).

The petroleum pipeline

Crude oil procurement

Despite a sustained search for oil by Soekor, the state-owned oil exploration company, no significant reserves have been discovered in South Africa. All crude oil is imported and landed at Saldanha Bay or at Durban (McGregor 1994). The oil industry purchases most of its crude oil requirements on the world market independently of the state. This is a change from the historic involvement of the state-owned Strategic Fuel Fund, which used to coordinate crude acquisition for most of the refiners.

South Africa's synthetic fuel industry supplies around 40% of domestic fuel (McGregor 1994). In terms of the current supply agreement between the oil industry and Sasol, Sasol's total synfuel production and its share of Natref current produc-

tion is bought by the oil companies in proportion to their respective national market shares at the in-bond landed cost (IBLC). The IBLC reflects the cost of refined product if it were landed in South Africa from four major international export crude oil refineries – three located in Singapore and one in Bahrain. The posted petrol, diesel and paraffin prices of these refineries are the base for the prices of these South African petroleum products (McGreggor 1994). IBLC is used to ensure import parity and is the price paid to oil refiners for their refined product and to Sasol for its synfuel.

Refining

The refining industry has operated on a deregulated basis since 1991, increasing competition amongst the oil majors and resulting in large investments to upgrade refineries to achieve maximum capacity and efficiency. Four oil refineries supply the domestic market. These are:

- the Durban based Genref, which is Engen-owned;
- the Durban based Sapref, which is 50% BP-owned and 50% Shell-owned;
- the Milnerton based Calref, which is Caltex-owned; and
- the Sasolburg based Natref, which is 64% Sasol- and 36% Total-owned.

Marketing

The refined product is marketed in two ways:

- indirectly through service stations; and
- directly to farmers, mines, corporate customers, government or third-party distributors.

Oil company retail stream

The retail stream is regulated by the retail rationalisation plan (RATPLAN) and retail price maintenance. Since 1960, fuel distribution has been controlled by the RATPLAN, which aimed to provide fuel at reasonable prices through a national network of service stations, to provide essential services for motorists, to ensure high turnover per site, and to prevent the proliferation of stations. The effect of the RATPLAN has been to entrench market shares for the major oil companies and effectively prevent new competition (Franco 1994). Even though oil companies are not allowed to operate any of the sites themselves, retail sites are tied to particular sources of supply and are unable to purchase from other local producers, or import, further entrenching the market share of the oil majors. It also guarantees employment for the over 50 000 service station attendants.

Oil company commercial stream

The oil companies are involved in the wholesale of gasoline, diesel, paraffin (kerosene), bunker fuel, LPG, chemicals, lubricants, bitumen and fuel oil, with petrol and diesel being the main products. Sales in this segment of the pipeline are not governed by resale price maintenance and are very competitive in terms of price, service and credit terms.

Key issues

- review of the activities of the Central Energy Fund;
- deregulation or reregulation of the industry;
- review of the tariff protection received by Mossgas and Sasol;
- promotion of small black business in the retail sector;
- possible loss of forecourt jobs;
- increased taxation;
- environmental impact of refining; and
- improved health and safety on the shopfloor.

Key human resource implications

- loss of forecourt jobs;
- the cost challenges of deregulation and its effects on employment.

1.2.5 The South African coal industry

South Africa is well endowed with coal and has the fifth-largest coal reserves in the world (Minerals Bureau 1992). It is the sixth-largest producer, producing 186 million tons in 1993 and is the third-largest exporter of coal – with 56% of exports going to Europe, 40% to the Far East and 4% to the rest of the world (Minerals Bureau 1993; Boers 1994). The sector employs around 59 000 people as opposed to 100 000 in 1986. Of labour, 68% is drawn from within South Africa, while 22% are migrant workers (Boers 1994).

Background and main activities of institutions in the coal subsector

South African coal production is dominated by three mining houses: Amcoal, Randcoal and Trans Natal (Gencor). Trans Natal and Randcoal have recently merged to form Trans Rand. The concentration of production is best illustrated by the statistic that thirteen mines produce 70% of total coal production in South Africa (Boers 1994). The fourth major producer is Sasol, which consumes most of its own production. These four groups produce about 80% of South African coal. Other major producers are JCI, Lonrho and Goldfields. The big coal producers supply both the domestic and export markets.

The concentrated supplier market is matched with an equally concentrated domestic buyer market, which consumes 72% of total coal production. Eskom consumes 40% of total coal production for electricity generation; Sasol consumes 20% for the production of liquid fuels, plastic and chemicals; the industrial market consumes 7%; and Iscor, the principle user of metallurgical coals, consumes 3%. Iscor also produces the majority of its own requirements through beneficiation. Household consumption is 1.6% of total production and is mainly used for space-heating and cooking. The balance is exported.

Eskom invites tenders for coal provision to power stations, resulting in a contract for a period of 20–40 years with mining houses being guaranteed an average return on investment of 18%. Since much of current coal production is committed to the bigger domestic buyers, it is very difficult for new producers to enter the market.

The power of the major producers and consumers is balanced by the threat of backward integration, the cost of fuel-switching and the limited threat from other substitute fuels. On the one hand, the supplier group is protected because they do not have to contend with other substitute fuels such as gas or oil. This strength is counteracted by large buyers, on the other hand, who have demonstrated that backward integration is a real possibility – Sasol and Iscor, for example, have collieries of their own.

The largest suppliers of the merchant and household market are Tavistock and Duiker Exploration. There is also a significant number of small merchants who load their trucks directly from the collieries and sell to both households and small-scale industries. Barriers to entry in the merchant market are low relative to entry into the coal production market, with a truck being the only requirement. This provides an opportunity for small business development, although there are a number of barriers such as upfront payment to wholesalers before a delivery is made, and the acceptance of bulk orders only (Palmer Group 1993). McPhail, a marketing and coal distributor, has formed a joint venture, Africoal, with a number of black traders. The objective is to develop small merchants and, in return for increasing their market share, McPhail provides access to better prices, consistent supply, as well as the upgrading of management skills.

Two key factors affect the local demand for coal: consumption by Eskom and Sasol. It is unlikely that future growth will stem from Sasol's synfuel demand as it is not likely to invest further in synthetic fuel production. Eskom's demand for coal may grow in the medium term and then stabilise once current capacity is fully utilised, especially if future generation expansion utilises hydroelectric or gas options (Eberhard & van Horen 1994).

The South African coal industry is greatly affected by the export market, which accounts for just 30% of total sales, but for about 50% of revenue. The principal controlling companies that export are: Tavistock, Amcoal, Randcoal, Trans Natal, Duiker Exploration, Goldfields and Agipcoal (Minerals Bureau 1993). Coal is exported to large power utilities and industrial consumers around the world through the Richards Bay terminal. Unlike the domestic market, the export market is extremely competitive.

Globally, the coal market is functioning under difficult conditions, with production costs spiralling and coal prices remaining low. New low-cost entrants like Venezuela, Columbia and Indonesia have contributed to low international coal prices, thereby eroding the profitability of established higher-cost producers like South Africa, Australia and the USA (Chamber of Mines 1992).

Internationally there are substitute fuels for coal such as gas and oil. Strong environmental lobbies, particularly in Europe, have led to reduced use of coal. Countries like the UK are also exploiting their gas reserves, but demand in the Far East seems set to increase (Baxter 1993). Relative to other international producers, South African coal is not of high quality. In order to compete internationally, export coal is washed, resulting in a 35% product loss. Also, 60% of South African coal mining is underground as opposed to opencast – opencast mining ensures better productivity and is safer. This makes it difficult for South Africa to reach the productivity levels of Australia where 60% of mining is opencast (Boers 1994).

Companies wishing to export coal face a bottleneck in the form of limited port capacity. The costs of exporting through ports other than Richards Bay, are prohibitive in terms of high railage rates and dock handling fees. Access to the export market is limited by the big two Amcoal and Trans Rand, who own the Richards Bay Coal Terminal. An additional terminal is being explored by Sasol and other companies through the Coalex venture.

Key issues

- the impact of the RDP on the coal industry;
- the question of mineral marketing auditors to increase foreign exchange through exportation;
- mineral beneficiation to increase employment opportunities;
- an evaluation of import parity pricing with the view to enhancing the competitiveness of local industries,
- the establishment of a mining summit to facilitate the development of national strategies for the industry;
- the democratisation of the mining sector;
- orderly downscaling of mines when necessary to minimise the impact on labour;
- minimum standards that ensure fair wages and employment conditions, as well as a health and safety system;
- environmental impact studies to ensure that the environment is protected;
- substitution of bituminous coal with low-smoke coal;
- Southern African investment to be promoted; and
- the encouragement of small scale mining.

Human resource implications

- job creation;
- capacity building;
- improved working conditions; and
- improved health and safety.

1.2.6 The South African nuclear industry

The nuclear subsector comprises Eskom, the Nuclear Fuels Corporation (Nufcor), the AEC and the Council for Nuclear Safety, a mix of parastatal, regulatory and private sector institutions. The sector employs 2 945 people, excluding Eskom's Koeberg nuclear power station.

South Africa possesses the following components of the nuclear fuel chain: uranium mining, uranium beneficiation, nuclear fuel fabrication, nuclear energy utilisation and radioactive waste storage.

Uranium mining in South Africa is undertaken principally by the gold mining industry which produces ammonium diuranate. The final saleable product of uranium oxide is produced at the plant belonging to the Nuclear Fuels Corporation. Nufcor is owned jointly by those gold mining companies who are also producers of uranium, and was formed in 1967. It is a private uranium processing and marketing organisation, commercially independent of the state (Williams 1994). Present production is 1 800 metric tonnes per year, down from 7 000 tonnes in the 1980s. Nufcor is the seventh-largest producer of uranium oxide in the world (Scorer 1994).

South Africa's nuclear involvement was formalised in 1948 when the Atomic Energy Board was established by an Act of Parliament to exercise control over and trade uranium. The Uranium Enrichment Corporation of South Africa was established in 1970 and later was amalgamated with the Nuclear Development Corporation to form the AEC.

The AEC operates a nuclear research centre, a uranium conversion and enrichment plant at Pelindaba, as well as a radioactive waste disposal site at Vaalputs in the northern Cape. AEC nuclear fuels production costs are between two and four times current spot prices, without taking capital expenditure and depreciation into account (Auf der Heyde 1993). The nuclear fuels production facilities at the AEC are not commercially viable, and the AEC is attempting to reposition itself as a commercial undertaking by focusing its efforts on the exploitation of its key technologies. Income from non-nuclear fuel products and services increased by 47% in 1992. Its industrial product portfolio ranges from large scale isotope production, product applications in aerospace, food, agriculture and chemical markets, as well as smoke-elimination devices for coal stoves (Stumpf 1994). The AEC reports through a Chief Executive and Chairperson to the DMEA (Scorer 1994). The AEC consumed 69% of the DMEA budget in 1994.

Eskom is the owner-manager of Koeberg, Africa's only nuclear power station, outside of Cape Town, and thus the end-user of the nuclear fuel produced by the AEC. Nuclear energy produced 4.8% of South Africa's electricity in 1993 (Eskom annual report 1993)

The Council for Nuclear Safety (CNS), South Africa's nuclear licensing authority, is appointed by the Minister of Mineral and Energy Affairs. The members of the Council may not be in the employ of an organisation which is subject to control by the Council. It is entrusted with the licensing of all nuclear installations and operations in South Africa to ensure that international safety standards are adhered to. The functions of the Council are implemented by an executive officer, also appointed by the Minister. The executive officer is assisted by a technical staff of engineers and scientists.

The future use of nuclear fuels as an option for expanding electricity generation does not look favourable. The development of capital-intensive new nuclear power plants within the near future seems unlikely, especially since there is an adequate supply of local coal. Also, improved political cooperation in the Southern African region makes the development of hydroelectric power a distinct possibility.

The main international customers for nuclear fuel are nuclear power utilities in the USA and Europe. Internationally the prospects for nuclear power do not seem very positive, although increases are forecast to come from France and Japan, South Korea and Taiwan (Schorer 1994). Unresolved issues include the storage of nuclear waste, and the abundance of cheaper fuels (*Economist* 1992). The increase of public opposition to nuclear power, greatly influenced by accidents at Chernobyl and Three Mile Island, has contributed to the disquiet which surrounds nuclear choices, both in South Africa and abroad (Schorer 1994).

Key issues

- reduction in the level of state support;
- closure of uranium enrichment plant and possibly conversion and fuel fabrication;
- restructuring of AEC;
- the future of Koeberg;
- potential relocation of the AEC's R&D to the Council for Scientific and Industrial Research;
- shortage of skilled staff to implement the regulatory framework; and
- health and safety standards need to be transparent and defined.

Human resource implications

- loss of jobs by highly skilled staff or redeployment to other research facilities; and
- need to train highly skilled staff to effect regulatory system.

1.2.7 Biomass

Background

Biomass in the form of fuelwood, crop residues and animal dung is the main source of fuel for around two billion people or half the world's population. Biomass is the world's fourth-largest energy source and currently provides 14% of the world's energy. In developing countries, where it is the major energy source, biomass supplies 35% of total energy use (Rosillo-Calle & Hall 1992).

In South Africa, fuelwood is the staple energy for twelve million rural people. It provides four-fifths of the total domestic energy to this sector, with total annual consumption by low-income households in South Africa about 11 million tons. Gandar (1994) estimates that, even if there was an accelerated programme of rural electrification, the primacy of fuelwood would continue. Most wood is harvested from natural woodland, and fuelwood plantations total only 60 000ha. Production is substantially lower than the potential (Gandar 1994).

The provision and use of biomass energy is a complex issue, since it is an integral part of the problems associated with deforestation. Eberhard & van Horen (1993) argue that, while fuelwood collection plays a significant role in the denudation of woodlands, it is essential not to ignore other causes – such as clearing of land for agriculture and settlement, and wood collection for construction and fencing purposes.

Administrative control of land supporting natural wood resources is generally very weak or absent, and has historically relied mainly upon communal and tribal systems which govern access to the land and resources. The management of

woodlots and afforestation programmes has historically been hindered by the incoherence of multiple administrations, each with its own priorities and administrative capacities. The institutional arrangements regarding the management of wood resources and the establishment of woodlots has not taken place in the context of an integrated development strategy for the rural poor, which integrates the demand for energy with the needs for shelter, water and food, health services and other basic priorities (van Horen 1994).

In the late 1980s there was a shift away from putting in woodlots to open-ended social forestry. Coinciding with this was a greater involvement from NGOs with social forestry programmes. Through the Biomass Initiative, funding is channeled to NGOs.

The Biomass Initiative established an inter-departmental steering committee, which is an embryonic form for an institutional structure for social forestry, even though it was limited by scope and by the absence of non-governmental representation (Gandar 1994).

Commercial and social forestry programmes in South Africa are not integrated. State institutions were orientated towards supporting the commercial sector, but now the Forestry Branch of the Department of Water Affairs and Forestry is repositioning itself to play a more significant role in social forestry. Its research functions have gone to Forestek, much of its conservation responsibilities have passed to provincial conservation bodies, its plantations have nearly all been taken over by the parastatal, SAFCOL, and its extension support to commercial growers has been terminated. By April 1993, 264 560ha of state plantation were transferred to Safcol.

The Department of Water Affairs and Forestry retains responsibility for policy on commercial and social forestry. The Department and its Minister were traditionally advised by the Forestry Council, which has up to now represented large commercial interests. At present, there is a move to make it more representative of regional interests and the needs of rural communities (Gandar 1994).

The extent of commercial forestry in South Africa is 1.37 million ha. The industry employs 122 000 people, 64 000 in plantation forestry, and 58 000 in primary wood-processing. It is dominated by a few corporate interests (Sappi, Mondi and Safcol), with 74% of the industry being in private hands. Commercial forestry supplies little fuelwood but does generate significant wastes which could be used for fuel.

The structure of the commercial forestry industry favours the development of large plantations: 82% of forest is in plantations of over 1 000 ha in extent, and 98.5% is in plantations of over 100 ha. This is as a result of vertical integration and the pricing structure. The main processing plants and the bulk of the plantations are in the same corporate hands, which prevents market forces from operating freely in the timber production sector. The result has been a distorted price structure with the profit margins in wood-processing outstripping those in timber production. Indeed, the Natal Timber Cooperative, representing private timber growers, finds it more profitable to export roundwood to a Moroccan pulp mill than to sell it locally. Similarly, the pricing structure, which favours primary processing at the expense of timber production, is an obstacle to the development of small-grower production. It has also been a major discouragement to the introduction of commercial tree-growing within a mixed agricultural system. Farmers have, however, demonstrated a readiness to plant high-value timber (for example sawtooth oak, *Quercus acutissima*), indicating that mixed timber and agricultural production is feasible given the appropriate incentives (Gandar 1994).

Key issues

- the integration of fuelwood provision into an integrated rural development approach; and
- use of wood wastes from commercial forests for fuelwood.

Key human resource implications

- integration of the TBVC and national states forestry departments;
- reorientation towards social forestry; and
- retraining of foresters for social forestry.

1.3 Summary

Key issues	Energy sub-sectors						
	State	Labour	Elec	Petrol	Coal	Nuclear	Biomass
Impact of RDP	X		X		X		
Integration of units from TBVC and national	X		X				X
Loss of jobs				X		X	
Job creation and small business development			X	X	X		
Need for highly skilled staff			X			X	
Re-orientation of institutions	X		X			X	X
Redressing of racial and gender imbalances	X		X	X	X	X	
Health and safety			X	X	X	X	

The common issues include:

- impact of the Reconstruction and Development Programme;
- integration of energy institutions from the old TBVC and national states;
- reorientation of existing institutions;
- redressing racial and gender imbalances; and
- health and safety.

The common human resource implications include:

- capacity building;
- improved health and safety;
- restructuring human resource policies and practices;
- retraining and training of staff;
- access to adult education;
- institutional capacity building; and
- affirmative action.

The energy sector faces a number of human resource challenges. The state, the electricity subsector and the biomass subsector are dealing with the integration of institutions from the old TBVC and national states. People managing the integration process need to understand the impact of change on human resource, but also need to equip all staff with skills to deal with the integration process. Human resource policies need to be standardised and reviewed to identify policies and practices that act as hidden barriers to the appointment, promotion, and retention of black and women staff.

Institutions like the state, Eskom and institutions in the biomass subsector, need to shift their policy orientation towards equity ie providing access to services and to the urban and rural poor. This change in policy focus will probably require the acquisition of more appropriate skills – for example, foresters need to be retrained for social forestry; policy makers need to acquire appropriate skills to develop policy in a context of equity; and utility managers need to develop a competence to deliver in an environment with changing policy objectives.

The Reconstruction and Development Programme calls for minimum standards that ensure fair wages and employment conditions, as well as a health and safety system (RDP, 1994) given the nature of this industry. The call is supported by unions in the petroleum, coal, nuclear and electricity subsectors, and is an area of ongoing negotiation between unions, institutions and the state.

The representation of women and black people in the sector is dismal. Increasingly, institutions will be required to redress the racial and gender imbalances in the sector, within a context of an increasingly rationalised industry and skill shortages. The challenges are great, and institutions will need strategies which include affirmative action, adult education and training.

The audit of human resources in the energy sector

2.1 Methodology

An audit of human resources in energy sector institutions was undertaken in order to get a sense of employment trends. It attempted to establish the extent to which women and black people were employed in the sector, and the levels at which they were employed. (For the purpose of this paper the term 'black' includes African black, 'Coloured' and Indian people.) The audit was done through a questionnaire which collected stock data about permanent staff strength disaggregated to race, gender and skill level. For simplicity, the Paterson job evaluation system was used as an indicator of skill levels.

Paterson Band A	Unskilled	Peromnes 16-19
Paterson Band B	Semi-skilled	Peromnes 12-15
Paterson band C	Supervisory/Skilled	Peromnes 7-11
Paterson band D	Managerial/Professional	Peromnes 4-6
Paterson band E	Senior managment	Peromnes 2-3
Paterson band F	Top management	Peromnes 1-1+

TABLE 2.1 Paterson bands, Peromnes and skill levels

Data was collected from the Department of Mineral and Energy Affairs (DMEA), Eskom, 15 municipal electricity departments, Moss gas, Sasol, Total, Caltex, Shell, British Petroleum, Engen, Zenex, the Atomic Energy Corporation (AEC), the Nuclear Fuels Corporation, as well as the Council for Nuclear Safety. Numerous attempts were made to get information from the coal companies, but no companies, apart from McPhail and Africoal, gave any information. Companies were generally reluctant to supply the data. The data is sensitive and there was great concern about how it would be used. Many companies were also in the process of 'right-sizing' and staff were feeling stretched. As a result the data collection process stretched over an extended period and data does not cover the same period for each company.

A number of companies have already subscribed to the Breakwater Monitor, a national human resources benchmarking exercise. It was developed by the University of Cape Town Graduate School of Business in collaboration with over 90 major South African organisations. The project was initiated to address the lack of reliable and integrated human resources information at a national level, and by economic sector. The data measures include permanent staff strength, training and development, education, and total employment costs. This database provides an excellent opportunity for participating energy sector institutions to benchmark key human resource indices.

2.2 The Department of Mineral and Energy Affairs

There were 41 staff employed by the Energy Chief Directorate of the DMEA, all of whom were white. Women comprised 43% of staff, with 23% being employed in professional/managerial categories. Of these women, 77% were employed in secretarial or administrative support functions.

2.3 Electricity sector

Data was provided by Eskom and 15 municipal electricity departments affiliated to the AMEU. The data contributed by the electricity departments should provide useful insights into employment trends at third tier government levels.

2.3.1 Eskom

Of the staff employed by Eskom, 52% were black, with 91.43% of them occupying semi-skilled/unskilled positions, 4% in supervisory positions, and 1.2% in managerial positions; 2.4% were trainees and 0.79% were bursars (See Figure 2.1).

At Eskom, women comprised 12,76% of the workforce. Of these 83% were white and 17% were black. In terms of the proportion of women employed in management functions, Eskom is a leader: 5.3% of women were employed in managerial functions, while 69% were employed in semi-skilled/unskilled positions. Black women comprised just over 2% of the total workforce, of whom 80% were employed in semi-skilled/unskilled categories (See Figure 2.2).

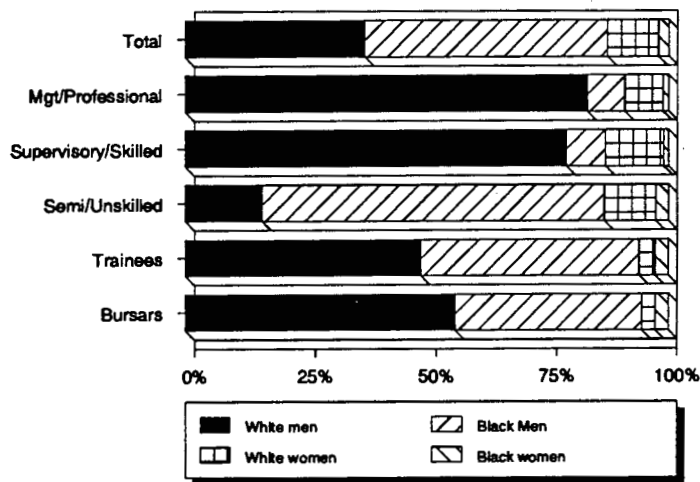


FIGURE 2.1 Eskom staff profile

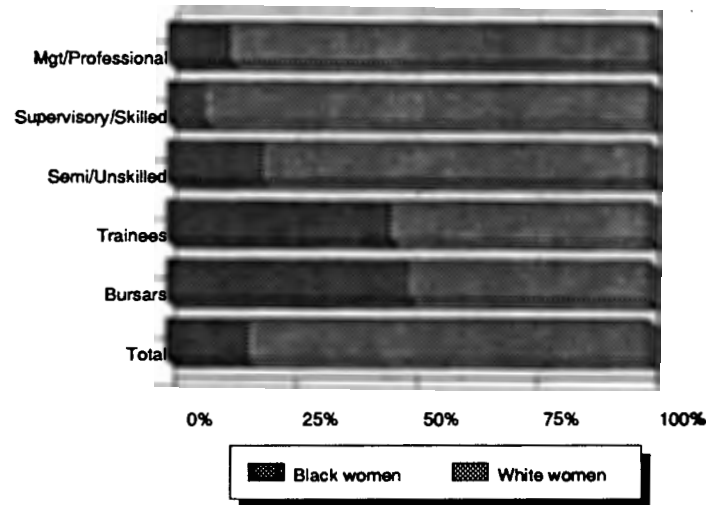


FIGURE 2.2 Eskom profile of women

Of the total staff, 7.7% were employed in managerial categories; 9% of all managers were black and 1.8% were black women; 8.2% of senior and top management were black. Of concern, however, is the low number of women bursars and women trainees. Over 50% of bursars are white men and just under 50% of trainees are white men.

2.3.2 The municipal electrical departments

Twenty municipal electrical departments responded, but only 15 submitted data. Those that submitted data were: Kimberley, Vryheid, Vredenburg and Saldanha, East London, Verwoedburg, Ellisras, Pietermaritzburg, Beacon Bay, Johannesburg, Roodepoort, Ladybrand, Diepmeadow, Alberton, Pretoria, and Strand.

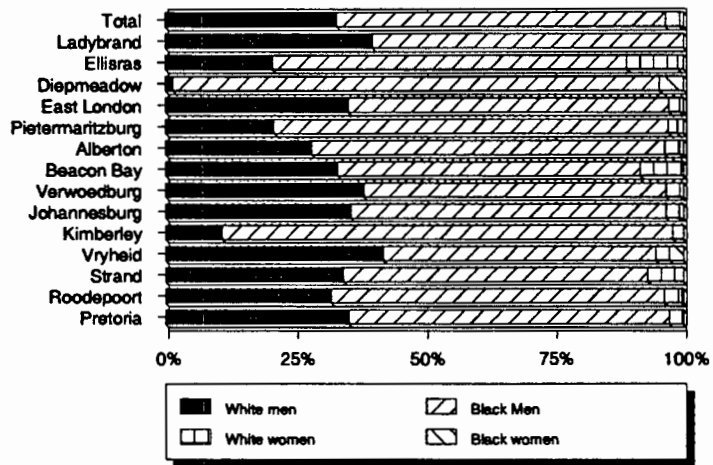


FIGURE 2.3 Staff profile of municipal electricity departments

64% of staff employed by the municipal electrical departments were black. Of these 96.2% occupied semi/unskilled positions, 3.5% occupied supervisory positions and 0.3% held managerial positions.

96.7% of the municipal electricity departments (sample: 6 429), were men, while 3.3% were women. 81% of the women employed were white, with 7% of them occupying managerial positions. There were no black women employed in professional/ managerial categories. Black women comprised 0.64% of total staff, with 97% of them occupying semi/unskilled positions (See Figure 2.4).

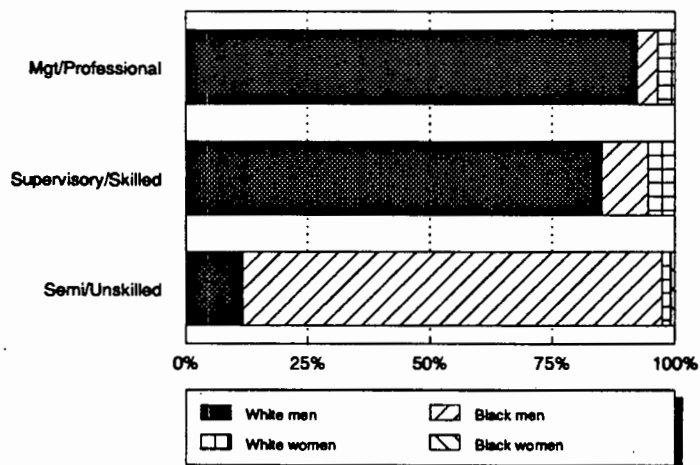


FIGURE 2.4 Municipal electricity departments' skill profile

Management comprised 5.3% of the total workforce; 92.3% of management were white men, 3.6% were white women, 4.1% were black men and 0% were black women.

2.4 Petroleum

BP, Caltex, Engen, Mossgas, Sasol, Shell, Total, and Zenex were surveyed. The data excludes people employed as petrol attendants. The data provided by Zenex was not disaggregated to race or gender. Caltex did not provide data.

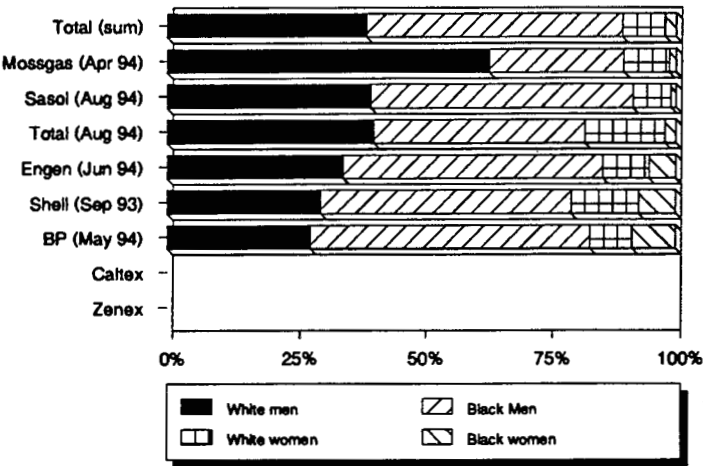


FIGURE 2.5 Oil companies' staff profile

53% (sample: 35 055) of the staff employed in the petroleum industry were black. Of these 85% occupied semi/unskilled positions, 13.5% occupied supervisory positions, and 1.43% held managerial positions (see Figure 2.6).

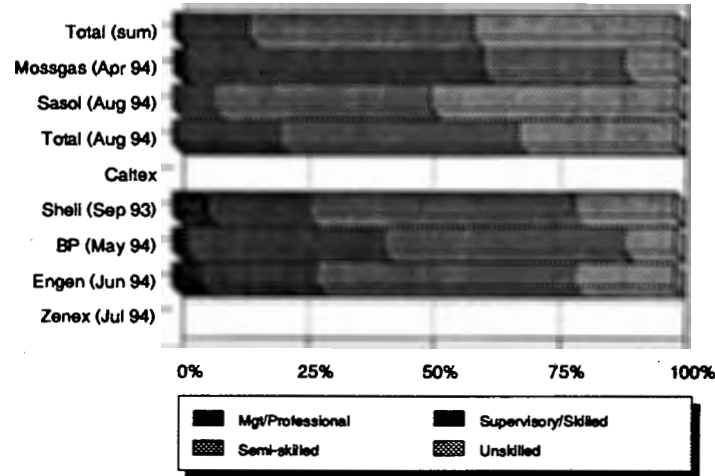


FIGURE 2.6 Oil companies' profile of black staff

In the petroleum industry around 10% of total staff were women. Of these 16.7% were employed in semi-skilled/unskilled positions; 79% held skilled/supervisory positions and 4.1% were in managerial positions. 0.03% of women were employed in senior managerial positions.

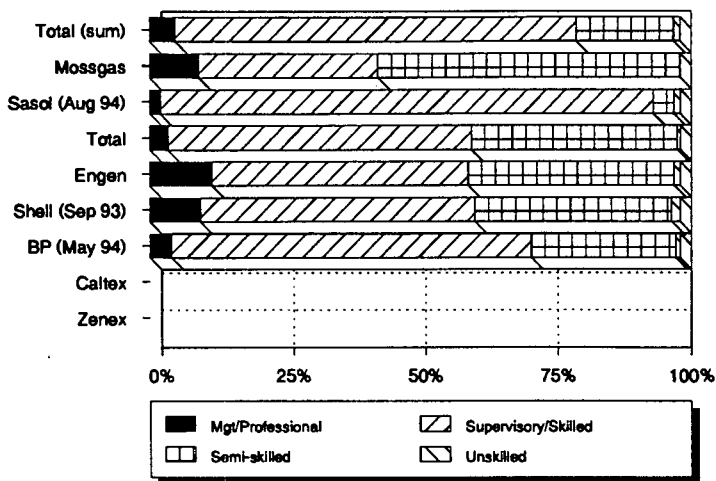


FIGURE 2.7 Oil companies' profile of women

Black women comprised 2.19% of the workforce in the petroleum subsector, of which 3% were employed in managerial positions.

7.5% of managers in the petroleum subsector were black. The profile was skewed by companies like Shell, BP and Engen where the range was 16%-19.3%. The overall range was 1.3%-19.3%.

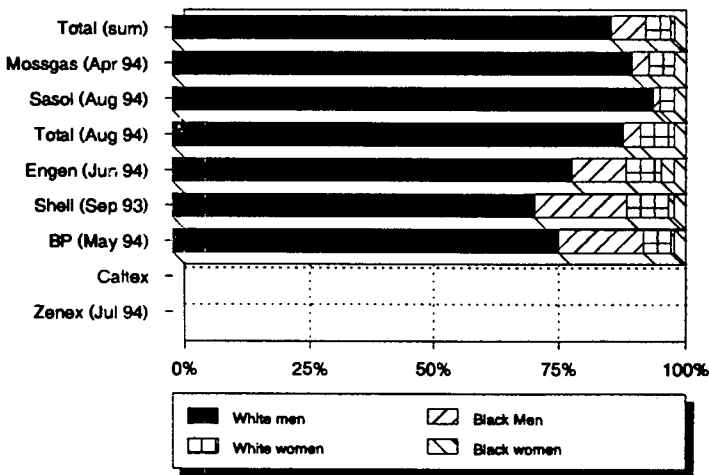


FIGURE 2.8 Oil companies' managerial profile

2.5 Coal

No usable data was submitted in this sub-sector.

2.6 Nuclear

The Atomic Energy Corporation, Nuclear Fuels Corporation and the Council for Nuclear safety were surveyed. The sector employed 2945 people, excluding staff employed at Koeberg.

14.3% of the staff employed in the nuclear industry were black. Of these 95% occupied semi/unskilled positions, 3.3% occupied supervisory positions, and 1.6% held managerial positions.

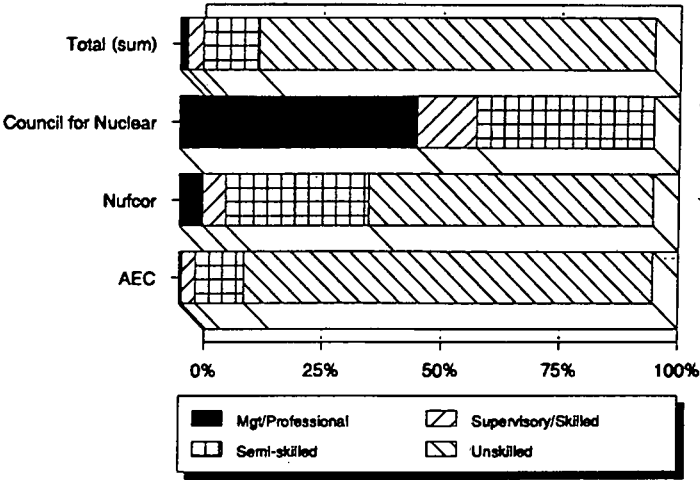


FIGURE 2.9 Profile of black staff in nuclear institutions

16% of total staff were women. Of these 68% were employed in semi/unskilled positions and 1% in managerial positions. Black women comprised 0.8% of total staff; 87.5% of black women were employed in semi-skilled /unskilled positions (see Figures 2.10 and 2.11).

Managers comprised 9.2% of the total staff, with 97.4% of managers white, and 2.6% black. All of senior and top management were white (see Figure 2.12).

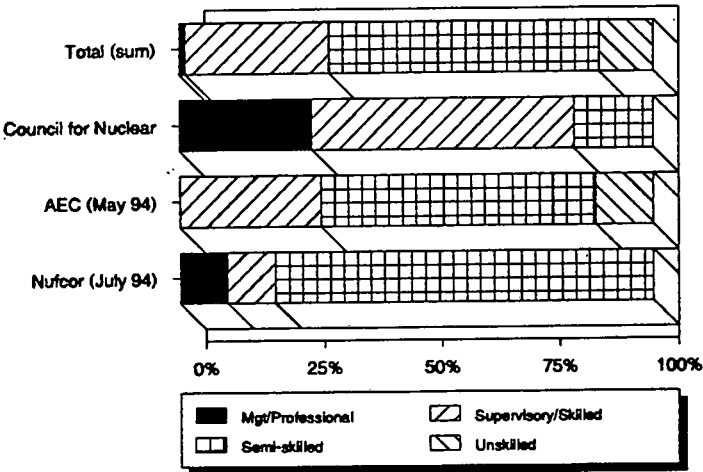


FIGURE 2.10 Nuclear institutions' profile of women

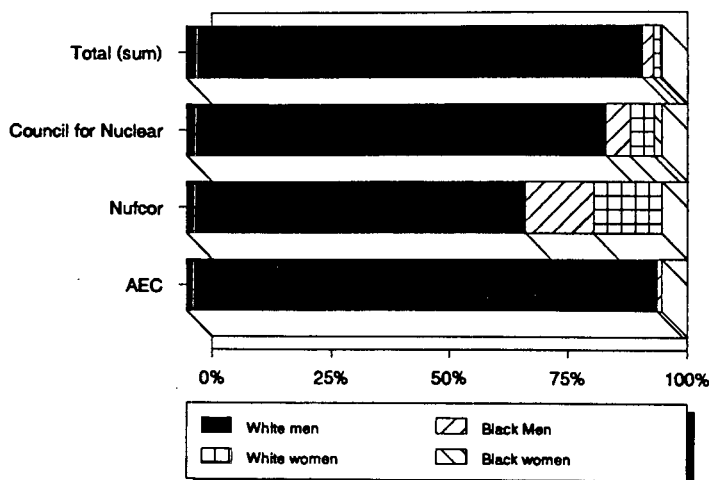


FIGURE 2.11 Managerial profile of nuclear institutions

2.7 Trends

- Managerial positions were almost exclusively occupied by white men.
- White men were still predominant in supervisory/skilled positions, although more white women and black men were represented at this level than in management. At Shell, BP and Engen black women were represented at supervisory levels.
- Black women were under-represented in the sector generally.
- In the oil companies women were generally employed in supervisory/skilled and semi-skilled positions. In the nuclear industry and in the Energy Directorate women were mainly employed in semi-skilled positions.

CHAPTER THREE

Affirmative action: A theoretical perspective

If you want one year of prosperity, grow grain.

If you want ten years of prosperity, grow a tree.

If you want one hundred years of prosperity, grow people.

— Chinese proverb

3.1 Introduction

The Government of National Unity has committed itself to a path of high economic growth. Central to this planned economic growth and development is human resource development. Although its precise contribution is difficult to measure, human capital created through investments in education and the development of skills emerges as one of the most significant determinants in studies of economic growth. High levels of education, the most important element in human resource development, leads to high productivity through improvements in the ability to adopt sophisticated technology and efficient organisational structures. Education also shapes values, attitudes and behavioural patterns which are instrumental in influencing the pace and form of social and economic developments. The most rapidly growing economies have made considerable investments in education (World Investment Report, 1994).

In the 1993 World Competitiveness Report, parameters such as money supply, inflation, and taxation were hardly referred to. The message was clear: what really counted were the human dimensions of competitiveness; knowledge was fuelling productivity gains in design and manufacture. The author argued that no country could succeed in world competitiveness without mastering the crucial element of speed. It took Honda five years to develop a car in the mid eighties: a decade later it took three years. An illiterate workforce could not master such processes; competitiveness, therefore, is not about cheap labour, but educated labour (Forson 1993).

South Africa is deficient in the area of human resource development, and is characterised by an inverse skills profile, with 76% of the workforce located in the semi-skilled/unskilled categories, compared with the international norm of 40% (Bowmaker-Falconer 1993).

<i>International norms</i>	<i>Paterson bands</i>	<i>Managerial and skill categories</i>	<i>South African sample</i>	<i>Energy sector sample</i>
25%	D-F	mgt/professional	4%	7.8%
35%	C	Skilled	20%	30.5%
35%	B	Semi-skilled	36%	61.9%
5%	A	Unskilled	40%	

TABLE 3.1 South Africa's inverse skills profile

As a result of the inverse skills profile, South Africa faces massive unemployment and a critical skills shortage simultaneously. The shortage of skilled, professional and managerial workers is demonstrated by the poor ratio of managers to subordinates (See Table 3.2), as well as by recent estimates that there will be 210 000 vacant management posts, by the year 2000 (Leresche 1993).

Country	Ratio
Japan	1:12
Australia	1:14
USA	1:16
South Africa	1:42

TABLE 3.2 Selected countries' ratio of managers to subordinates

Despite the skills shortage there is evidence that South African companies have disinvested in human capital. In 1992, 5 588 people completed their artisan training, which was over 50% less than in 1985. In contrast, the so-called 'winning nations' focused their efforts on ongoing technical education and training. Only 13% of university students in South Africa are enrolled in the natural and hard sciences. In Singapore, South Korea and Taiwan this was more than 50% (Bowmaker-Falconer & Horwitz 1994).

The 1994 World Competitiveness Report ranked South Africa for the 'people dimension' 41st out of 41. The report, which is an annual analysis of how conducive or detrimental a country's environment is to the domestic and global competitiveness of organisations operating in a specific country, suggested that South Africa had assets which could place it among the most competitive countries in the world. It ranked 20th (out of 41) in 'Infrastructure', 27th in 'Science and Technology', and 29th in 'Management' (People Dynamics 1994). South Africa therefore needs to invest in appropriate education and training or it will increasingly become marginalised in the world economy. The challenge is for human resource planners to train, educate and develop sufficient numbers of South Africans to address these imbalances. The task is formidable: one-third of all black South Africans have no formal education, 80% have not been to high school (Lereseche 1993), and 60% of the economically active population in South Africa are functionally illiterate (Innes 1993). Affirmative action is therefore not only a political imperative: meeting the backlog is critical for the economic development and competitiveness of the country.

This chapter focuses on affirmative action in employment. The first section explores the theoretical debate which underpins affirmative action, while the following section identifies the critical success factors for the implementation of an effective affirmative action programme in the workplace.

3.2 Affirmative action

Terms referring to affirmative action, equal opportunity, employment equity, corrective action, black advancement and managing diversity are commonplace in South African institutions today, and will probably dominate human resource practice well into the next century. These terms are generally used to describe a process of potential change; however, the scope, enthusiasm, motive or conceptual understanding differs from user to user.

To some, the practices to which these terms refer offer a way of overcoming the inequities of the past within the corporate sphere; while others criticise a narrow focus on identifying and promoting a select number of black managers. For many South Africans it means quotas for university admissions, jobs or membership on corporate boards based on race (Weiner 1993), while for others it means the entire range of policies intended to reduce racial and gender inequality. Protagonists of affirmative action stress the need to remove obstacles to advancement, as well as the need for extra support and resources, while critics of affirmative action ask how anyone who believes in equality and opposes discrimination can agree to a policy of special treatment for specific categories of people (Meintjies 1993).

3.2.1 The concept of affirmative action

Affirmative action vs non-discrimination

Affirmative action is often seen as synonymous with non-discrimination or with equal opportunity programmes. Non-discrimination or equal opportunity policies work to ensure that people have equal access to appointments, promotions or training irrespective of race, sex or disability; the theory underpinning non-discrimination is that all individuals should be treated equally. On the other hand, the argument behind affirmative action is that to create equality you will need to treat some people differently for a period of time, since employment decisions are made within the context of established patterns of discrimination and inequality (Verster 1994). In summary: affirmative action is a process or a strategy to achieve greater employment equity or equal employment opportunity. Employment equity is the desired end-result and affirmative action or the advancement of specific groups are strategies to achieve it.

Many white men perceive affirmative action as reverse discrimination, while many black people perceive it as levelling the playing fields (a frequently used metaphor in South Africa), redressing past imbalances or normalising the work environment. A working definition of affirmative action based on the International Covenant on the Elimination of All Forms of Racial Discrimination (CERD) would be that:

Affirmative action is preference, by way of special measures, for certain groups or members of such groups (typically defined by race, gender or ethnic identity) for the purpose of securing adequate advancement of such groups or their individual members in order to secure equal enjoyment of human rights and fundamental freedoms.

This relates to CERD's definition of racial discrimination:

In this Convention, the term 'racial discrimination' shall mean any distinction, exclusion, restriction or preference based on race, colour, descent, or national or ethnic origin which has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise on an equal footing, of human rights and fundamental freedoms in the political, economic, social, cultural or any other field of public life.

These definitions are sometimes seen as conflicting, leading to the derogatory characterisation of affirmative action as 'reverse discrimination'. In terms of the Convention, however, the use of affirmative action is justified *only* when used for the purpose of securing adequate advancement of such groups or their individual members in order to ensure equal enjoyment of human rights. It is typically justified in situations where there has been systematic discrimination, and where societies are trying to reach the goal demanded by contemporary international law: equal enjoyment of human rights and fundamental freedoms. It follows, however, that such measures could not be continued after the purpose has been achieved (Eide 1992; European Union 1992).

Similarly, Section 8 of the interim Bill of Rights in South Africa provides that every person should have the right to equality before the law and equal protection of the law, and includes the right not to be unfairly discriminated against directly or indirectly on the grounds of gender, race, sex, ethnic or social origin, colour, sexual orientation, age, disability, religious conscience, belief, culture or language. It provides that measures designed to achieve the adequate protection and advancement of persons or groups of persons disadvantaged by unfair discrimination should not be precluded from taking place. It prohibits discrimination, but sanctions affirmative action.

Legislation

It is probable that the Bill of Rights will be supplemented by legislation on discrimination, affirmative action and employment equity. Such legislation could fall into the following categories:

- Minimal legislation which renders affirmative action mostly voluntary and which relies on the courts to define the limits of affirmative action. The United States is an example of a country using this system.
- Detailed legislation which specifies the required nature and scope of affirmative action. In countries like Canada, France, Australia, the law insists on an employment equity policy and programme and imposes administrative, procedural and 'soft' target requirements on private sector employers over a certain size.
- Legislation which allows collective bargaining to define the nature and scope and limitations of affirmative action. Some Scandinavian countries have prioritised the autonomy of the collective bargaining process and allowed the law to play an auxiliary role or to operate in the absence of a collective bargaining agreement (Albertyn, 1993).

Albertyn (1993) suggests that the Australian legislation provides a valuable model to South Africa. Detailed legislation (adapted from Australian and Namibian legislation) might include the following features:

- A policy statement on affirmative action should be developed and communicated to all employees.
- A senior manager must be appointed to develop, implement and coordinate the affirmative action programme.
- Trade unions and
- all other employees should be consulted about the programmes.
- A statistical analysis and profile of the workforce must be prepared.
- All existing human resource policies and practices need to be reviewed and amended.
- The organisation needs to set measurable objectives and goals. There are no quotas.
- Provision must be made for training programmes to facilitate recruitment and or advancement.
- Internal procedures or processes need to be set up to monitor and evaluate the implementation of affirmative action.
- A public report on workforce profile and programme outline must be prepared, as well as a separate confidential report on the details of the programme.
- The names of institutions which default are tabled in parliament.

Good legislation should protect white and black, men and women. White people and men should be able to complain about reverse discrimination and black people and women should be able to complain about discrimination.

Scope

Affirmative action can be defined broadly or narrowly. Broad definitions are aimed at accelerated creation of a balanced society, a society where there is equality in participation at all levels in political life, professions, in the economy and in other fields. Narrowly defined definitions focus on employment and employment equity in the workplace. The scope of affirmative action in the workplace also changes from one institution to another. Companies in South Africa generally define affirm-

ative action to include adult education and the development of small black businesses, as well as the increased participation of black and women South Africans.

3.3 Towards a model for implementation

Many organisations commit themselves to affirmative action without understanding what it really involves, often seeing it in terms of the number of black people in the organisation. Strategies include the aggressive recruitment of black people, who are then trained to deal with and adjust to company culture. This approach, commonly referred to as black advancement, sees development simply in terms of putting knowledge and skills into black people and then expecting them to function in an environment which remains fundamentally unchanged (Human 1993). In the mid-1980s 'black advancement' was the term on the lips of every human resource practitioner and of many chief executives. Organisations went to extensive lengths to determine the best way of promoting black people into more visible managerial positions, with some of the larger companies appointing special task committees to research and submit recommendations for policy. What most of these policies had in common, however, was that they failed (Ramudzuli & Menen, 1994). Theorists like Human (1993) and Legum (1993) have attributed the failure of black advancement to the fact that it was based on the flawed deficit model of under-preparedness for the white corporate world. They argued that the black advancement model failed to take cognisance of the fact that the development and progress of black managers and staff, depend in large part on the assessment, re-education and training of white managers in people-management skills.

The people-development model developed by the Centre for African Management and Linda Human, argues that a person's performance is only partly a result of inherent ability and training; of equal importance is the culture of the organisation and the way in which people are managed. They argue that the focus of affirmative action should be on transforming the institution itself. It should recognise the role played by management in the development of new staff and programmes, address racism and sexism within the organisation, define the responsibilities of different people in the process, as well as review the reward systems.

A plethora of articles on affirmative action have tended to focus on its merits and demerits, as well as on the concept itself. Debates about the concept, while important, distract from the real job to be done (Human 1993). The debate needs to shift towards practical design and implementation. The next section of this paper focuses on the critical success factors for the implementation of effective affirmative action programmes. It will also serve as a benchmark to analyse affirmative action initiatives in the energy sector, which will be described in the Chapter 4.

3.4 Critical success factors

3.4.1 A well-managed process

Affirmative action often generates acrimony and passion and therefore needs to be dealt with in a sensitive way. All staff need to be sensitised to affirmative action, and communication about the process needs to happen on an ongoing basis. The more informed people are the less likelihood there is of misinterpretation and irrational aggrievement.

Organisations need to manage black and white racism – white fear and insecurity, as well as black expectations – in a sensitive way. In many organisations staff will need to be guided to learn new behaviours and form new relationships. Organisations will increasingly need to be more transparent to avoid misunderstanding and inaccurate perceptions. For example, staff will need to understand why resources

are allocated in a certain way, or why a person was selected for employment or promotion.

Organisations will also need to be more open to reviewing, changing or adapting the way things were done in the past to make it more acceptable to all members of staff. This is part of building a culture which is inclusive of the values, norms, needs and aspirations of black and women staff.

Organisational culture is not uncontested and therefore changes all the time. The nature of the change required by a process such as affirmative action might require more radical change, and the management of the change process is often underplayed. Staff managing the change process need to appreciate the complexity of change. The people who fill positions in a complex organisation are also complex. All change processes involve loss: loss of familiar competencies, disrupted attachments, loss of a particular world view, or a perceived loss of opportunity. These feelings engendered by loss call for understanding and expression. Managers also need to realise the impact there might be on workplace attitudes and relationships.

Managers face a unique challenge. The South African workforce has historically comprised traditional enemies and is therefore plagued by endemic racial polarisation. It is not sufficient to understand the differences: it is necessary to understand the anger and the resentment, the mistrust and the fear, the manipulation and the indoctrination. Only through a thorough understanding of the consequences of apartheid and the impact that it had on employees, will managers be better equipped to communicate with staff in a manner that will enhance trust and commitment and reduce the levels of polarisation (Fuhr 1994).

3.4.2 *Recognise the role of managerial expectations in performance*

This is probably one of the more important, yet underestimated, aspects of affirmative action. If the relationship between the manager and the subordinate is not developed, black or white people development will not happen effectively. Managers play a crucial role in developing staff, since 80% of development occurs on the job. In the past little pressure was put on managers to coach or develop staff or to acquire skills to do this. This is significant and means the training of managers in people management skills is often more urgently required than the training of subordinates (Human 1993).

There is a correlation between management expectation and performance. Various studies have shown that white managers in South Africa believe black people and women do not have 'what it takes' (Day 1993; Brook 1993; Human 1993; Motshabi 1993). Managers can be told that all cultures are equal and that they should respect diversity, but if their negative expectations are not addressed (their belief that Black people are less capable), and the effect of these expectations on performance are not highlighted, managing diversity programmes will have no impact (Human 1993).

3.4.3 *Review of human resource policies and practices*

Employment systems determine how human resources are recruited, selected, developed, managed, trained and rewarded. They are one of the principal means by which corporate goals are realised. A review of employment systems will identify policies and practices that act as hidden barriers to the appointment, development, promotion and retention of black and women staff (Ontario Women's Directorate 1989; Human 1993). Organisations will need to adapt, change or introduce policies to ensure that all staff are afforded equal access to opportunities, but also to ensure that there are strategies in place to ensure the increased participation of black and women members of staff. For example, in many organisations well-entrenched networks influence and affect employment decisions. In an effort to counteract this the organisation might agree to advertise all vacant positions to widen the pool and establish a representative selection committee

comprising black, white, women and men staff to reduce selection bias. Employment policies might impede the retention of women – the organisation might consider adequate maternity benefits, job sharing, career break schemes, flexible hours and access to daycare facilities. Issues such as role conflict experienced by many women, and problems related to dual-career couples, might also be addressed.

3.4.4 Ensure that there are mechanisms in place to effect the affirmative action strategy

Mechanisms to effect the affirmative action strategy might include:

- an affirmative action manager;
- a formal mentoring process;
- a recruitment strategy;
- a performance appraisal system which assesses the performance of subordinates, as well as the performance of managers with respect to their willingness and ability to manage and develop subordinates, black or white;
- interventions to adapt the organisational culture; and
- real jobs as opposed to supernumary jobs.

3.4.5 Appoint people to real jobs

Organisations are inclined to appoint black staff to supernumary positions, which are financed from a supernumary budget as opposed to a line budget. This approach has failed in the past and has been psychologically destructive. It is also the principal contributor to the high turnover of black managers (Bowmaker-Falconer & Horwitz 1994). Nor is it unusual for organisations to appoint a black person to a Paterson E-band position (senior management) without responsibility, staff or budget. Organisations need to see the benefit of developing people and should encourage development through real and meaningful responsibility. To quote Bowmaker-Falconer & Horwitz (1994) this is the era of 'lean and mean' organisations and there is no place for affirmative action supernumeries.

3.4.6 Redefine the merit principle / Creative recruitment and selection

Recruitment and selection tend to be the most problematic aspects of affirmative action, because of the varying attitudes towards issues such as quotas, merit and standards. It is often argued that affirmative action leads to tokenism and to a lowering of standards. This argument is frequently put forward as a justification for retaining current entrance criteria to jobs or to explain the failure of blacks and women who are brought into organisations without the 'requisite' entry criteria or person specifications (Human 1993).

Commentators have generally seen this argument as a diversion. Maphai (1991) argues that standards are created and are therefore not uncontested; further, that the creation of standards are market-related and not necessarily related to doing the job – for example universities which focus only on symbols when they deal with black students are not maintaining standards, but are applying the law of the free market: if the demand is high, let it be those with the best results. Innes (1993) argues that the standards argument is based on the unfounded assumption that in the past standards were the only criterion used to determine who got the job. Research evidence shows that perceptions of the stereotypes associated with men, on the one hand, and women and black people on the other, strongly influence the assessment of merit. The process known as 'psychological closure' or 'homosocial reproduction', for example, in which people prefer to give jobs to people like themselves results in a bias towards people similar to the selectors. This is not easily detected as discrimination, but nonetheless results in appointments which do not conform to the merit principle (Berthon & Human 1991; Albertyn & White 1994). Albertyn and White argue, therefore, that affirmative action enshrines rather than displaces

the merit principle, since it ensures that only relevant and appropriate criteria are used for appointments and promotions, and that proper consideration is given to all qualified candidates, regardless of race or gender. According to Human (1991), the argument only holds true if it can be proved that in order to do the job to the required standard the job incumbent must have a certain educational qualification and/or a number of years' experience – that is, that the level of entry qualification has predictive validity with respect to performance on the job. This she argues is difficult, since:

- in many organisations the educational qualifications attached to certain jobs are often either arbitrary or too high;
- performance on the job is often related to competencies that are not encompassed in the entrance criteria;
- once recruited, an individual's performance on the job is not simply dependent on that person's skills and abilities, but on the way in which a person is managed and in particular the expectations that his/her manager has of him/her.

(Human 1993)

We need to thwart the inertia that develops from the standards debate. The emphasis needs to shift away from the exclusive emphasis on experience and qualifications to *ability to produce*. The selection process should increase the pool of people from which institutions are able to recruit rather than restrict it.

3.4.7 Define roles and responsibilities

Top management

Top management needs to be committed not only at social functions or in their annual reports, but should be involved in the hands-on implementation of the programme. It is imperative that top management are seen to champion the process and that they consistently monitor, evaluate and insist on progress towards the agreed-upon objectives and standards. Ongoing monitoring provides not only the numbers to evaluate the changes, but is a useful strategy for communicating commitment. Watson (1994) recommends the following assessment techniques:

- establishment of a democratically elected committee;
- review of the process at board meetings;
- report on their progress in the annual report;
- a commitment to regular annual audits, as well as attitudes and perceptions audits;
- appointment of a senior staff member with overall responsibility for the affirmative action process;
- racial and gender ratios, as well as human resource development; and
- racial ratios and human resource development objectives should be identified as key result areas for all managers.

Line management

Successful affirmative action depends on the line manager's willingness to recruit, develop and promote formerly excluded groups, something the human resource department cannot do. Line managers should set their own goals and objectives to eliminate discrimination and promote the advancement of black and women staff members. Once goals have been agreed on, line managers should be evaluated in terms of their performance in the same way as they are evaluated against the achievement of operating results (Watson 1994). This is supported by Human (1991), who argues that line managers play a key role in on-the-job coaching and the development of staff. They should be trained in, and held accountable for, this area.

Human resources management

Human resource practitioners need to be capable of impacting on real change. Ndlovu argues that, of all the disciplines in management, human resource practi-

tioners are the ones who should seek respect not popularity. By leading the changes involving the integration of black and women staff they would need to step on toes. Human resource practitioners need to become the strategic conscience of the organisation. The proper role of the human resource departments/function is, therefore, to support line management's ownership of the people development process by providing appropriate systems and advice (Human 1991).

3.5 Summary

This chapter has suggested that affirmative action is more than a political imperative: it is necessary for the economic competitiveness of South Africa. The message is clear: affirmative action is not simply about the aggressive recruitment of black and women staff, but about a different approach to human resource development and management, which has implications beyond the human resource department.

Now, more than ever, it is necessary for line managers to assume partial responsibility for the performance and development of staff. Organisations and managers should not only be measured on their ability to deliver returns to shareholders, but also in terms of the results achieved in the area of people development.

Affirmative action is not a choice. It is a necessity.

Survey of affirmative action initiatives in the energy sector

This chapter documents the range of affirmative action initiatives in the energy sector in South Africa, focusing on existing mechanisms to give effect to affirmative action policies.

Individuals within companies, usually the affirmative action managers, were asked to provide a description of their affirmative action initiatives including the history of that strategy and the philosophy underpinning it, the mechanisms in place to give effect to the strategy, and a subjective analysis of impact thus far. Except in the case of the municipal electrical departments, personal interviews were conducted. Companies were at different stages in the implementation of their programmes; the oil industry, for example, had the richest experience of affirmative action and this is reflected in the synthesis.

The description provided here is theoretical and is not a reflection of how the process was being experienced by people in the workplace. In retrospect it can be seen that it would have been useful to compare and contrast the strategies with the real experience.

4.1 The Department of Mineral and Energy Affairs

In 1986 the DMEA got permission to employ black staff from the Commission for Administration, or Commission for Public Service and Administration as it is now called. The DMEA has, however, experienced problems with recruiting black staff, which it attributes to a shortage of skilled black staff in the following disciplines: mining engineering, mineral economics, energy specialism and geology. Low civil service salaries have also been an inhibiting factor. Bursaries have now been made available to black graduates in the skill shortage areas.

In terms of the Interim Constitution, the Commission for Public Service and Administration, the policy-making head of the public service, has been charged with the introduction of a programme of affirmative action, as well as the development of appropriate mechanisms to eliminate inequities in employment. In 1994 the Public Service Commission set aside R2 million for the implementation of affirmative action.

4.2 Labour

4.2.1 Affirmative action

This section looks at the way in which the trade unions perceived affirmative action and does not document affirmative action initiatives in each trade union.

Trade unions saw affirmative action as a central pillar of industrial relations in the new South Africa. They conceived of it broadly, as a comprehensive strategy to overcome the imbalances caused by apartheid and racism, accelerating the development of a balanced society. For them it entailed a total restructuring in employment, education, health and other areas of social welfare (Alperson, 1994). Patel (1994), a trade unionist, argues that empowerment programmes seeking to absorb a few black individuals into an essentially white power structure are bound to fail. He links affirmative action to the economic empowerment of workers on a mass

scale through measures such as the support of tripartite institutions (government, industry and labour), the acceptance of a wider collective bargaining agenda, the extension of trade unionism and union rights, as well as training the workforce.

Unionists also see the disclosure of company information as an aspect of affirmative action, enabling workers to participate in decisions affecting investment, the distribution of profit, and what is produced (Alperson, 1994). To fulfil this bargaining function, labour representatives need timely and relevant information. The inclusion of disclosure into the scope of affirmative action was particularly important within the context of the shift towards 'bargained corporatism'.

Trade unions have made attempts to increase the participation of women within the trade union movement. The Chemical Workers Industrial union, which comprised 88% men and 12% women, established a women's committee. Their strategy, according to Alperson (1994), included:

- campaigning for the election of more women as shop stewards;
- ensuring that women were elected to responsible leadership positions;
- appointing more women organisers;
- taking disciplinary action against men who sexually harassed women workers;
- ensuring that women's issues were discussed at all union meetings and structures; and
- increasing the budget for women's forums.

Nactu also established a Women's Unit in 1984. The objectives were to:

- ensure the full participation of women within Nactu and its affiliates;
- create a platform for women's issues; and
- research issues faced by women.

4.3 Electricity

4.3.1 Eskom

History

The affirmative action programme at Eskom has undergone three major changes. The company adopted its first affirmative action policy in 1986, but Dawn Mokhobo (Senior Manager, Human Resources) thinks that it had little effect – 'the political climate was not supportive' (quoted in Alperson 1994). In 1991 the company formalised its commitment to adopt an official equal opportunity policy, which Eskom called 'harmonisation'. It was a two-pronged approach to affirmative action: firstly, to strengthen the infrastructure in black communities by raising its expenditure on education and electrification; secondly, to change the nature of the organisation, targeting black and women South Africans. A series of interim targets were put in place to monitor the process. Eskom hoped that through its affirmative action strategy it would achieve the following by the year 2000:

- an environment in which race and gender were not problems, where affirmative action issues were discussed both internally and externally; and where at least half of all staff in C upper to F bands on the Paterson grading system would be black South Africans;
- an open culture which encouraged diversity and innovation;
- an environment in which performance and ability were the only criteria for selection and promotion and where the development of people was a key focus; and
- a context where Eskom was widely viewed as credible and legitimate.

In 1994 the programme was adapted and excluded white women as a target group. Affirmative action had focused primarily on white women in the recent past; now

black South Africans (including 'coloureds' and Asians) have become the primary beneficiaries.

During the conduct of a recent study to make recommendations to Eskom about how the company could bring its policies and practices in line with the requirements of the RDP, the following were among issues raised with respect to human resources:

- Training was largely focused on management and technical operator bands. These categories were mainly white, which meant that the lower bands were receiving less training.
- The existing skills profile had a white bias; for example, an advertisement for a secretary might demand 'full bilingualism'.
- Affirmative action quotas were put together by band and not by functional areas. Power lies in line functions, and therefore power relations would not change unless black and women staff were recruited into line positions.
- Gender was ignored in the present affirmative action strategy.
- Black staff employed in Paterson E-band often did not have budgets, responsibility, or real jobs.
- Within bands there were racially-based salary inconsistencies.
- Eskom had no provision for child care. (Cliffe 1994)

A number of recommendations were made to address these issues.

Eskom, a company considered by the Black Management Forum as one of South Africa's most progressive companies (Ryan 1993), has the following policy interventions in place:

- preferential recruitment and promotion of black South Africans;
- a commitment to dealing with the aspirations of white males in the future;
- recruitment for potential rather than simply experience;
- the setting of realistic targets;
- a commitment to management development through accelerated development programmes, bridging programmes and international programmes;
- monitoring of the affirmative action process;
- the establishment of influence forums;
- adult basic education for the Paterson A and B bands;
- diversity management and gender equality; and
- interventions to change the present organisational culture which presently comprised: an entitlement culture (blacks), a sense of threat and fear (whites), racism (black and white), and stigma (blacks did not wish to be regarded as affirmative action candidates).

4.3.2 The municipal electricity departments

Four of the municipal electricity departments submitted affirmative action policy statements, on which the following account is based: Verwoedburg, Pietermaritzburg, Kimberley and Pretoria.

Pietermaritzburg

The City Council of Pietermaritzburg resolved on 30 November 1993 to adopt and implement a constructive employment/development policy. The policy was developed to redress the imbalances in the racial composition of the workforce at all levels. In response to Council's policy, the management of Pietermaritzburg's Electricity Department developed guiding principles for its implementation, including:

- upgrading the skill levels of disadvantaged staff within the organisation;
- preferential recruitment of applicants from disadvantaged communities;
- the provision of adequate in-service training.

A 'person from a disadvantaged background' would refer to an African black South African.

Verwoedburg

Verwoedburg Electricity Department did not have a history of affirmative action and was at the initial stages of implementing an affirmative action policy. For them the purpose of affirmative action was to provide opportunities for people previously disadvantaged to participate at the management and policy-making levels of third-tier government. The following mechanisms were in place to effect the affirmative action policy:

- the creation of shadow posts at different levels;
- transparency in the selection and recruitment process: advertising of posts and the establishment of selection panels;
- the establishment of a mentor system;
- personal development programmes;
- clarification of expectations, so that the candidate, his/her mentor and organisation would know what is expected;
- enrichment programmes; and
- career planning.

Kimberley

The following guidelines were in place:

- consultation of all stakeholders about affirmative action;
- promotion on merit;
- the creation of a climate of support;
- adequate resourcing of programmes;
- setting of targets for specified posts;
- dual responsibility of employer and employee for the success of the programme;
- appointment and promotion remain a confidential matter and the prerogative of the employer;
- organisational involvement in the socio-economic upliftment of disadvantaged staff;
- affirmative action is a line responsibility;
- affirmative action is a management activity together with all other activities;
- assessment against job descriptions, which would be kept updated.

Pretoria

The City Council of Pretoria entered into an agreement with the Transvaal Transport Workers' Union (TTWU), the South African Municipal Workers' Union (SAMWU), the South African Association for Municipal Employees (SAAME), the Pretoria Municipal Asian Employees' Association (PMAEA), the Municipal Education State Health and Allied Workers' Union (MESHAWU) and the Pretoria Municipal Coloured Employees' Association (PMCEA).

The objectives of the programme were to implement a comprehensive affirmative action, education, training and development strategies to redress historic and existing inequalities, imbalances, prejudices and injustices in the workplace; as well as to ensure equal employment opportunity practices in the City Council of Pretoria.

The following strategies and procedures were in place:

- objectives, action plans and time-tables;
- the review of human resource systems, procedures and practices;
- targeted recruitment;

- objective selection and assessment instruments, which have predictive validity with regard to work performance in specific posts;
- a performance evaluation process in which management are held co-responsible;
- individual development plans based on individual development needs;
- management of the organisations culture;
- development programmes for disadvantaged people;
- an affirmative action steering committee; and
- an affirmative action support person

4.4 Petroleum

Two oil companies requested anonymity, and company names are not given here.

Two-thirds of organisations in the oil industry had affirmative action or equal opportunity policies in place. Of the eight companies in the petroleum sector, three had no explicit affirmative action policy, although this did not mean that interventions were not already taking place. One company was in the process of negotiating a policy with its trade unions. Companies generally referred to 'equal opportunity policies', with one company explicitly calling theirs a black advancement strategy adding that it was 'a necessary intervention to achieve employment equity'.

History

Affirmative action in the industry began in the 1970s, when American and European companies were signatories to the Sullivan and European codes respectively. The European Code of Conduct focused on African black South Africans and provided guidelines for dealing with the following issues: pay, industrial relations: freedom of association and recognition of trade unions, community involvement, the profile of the organisation, and training and development. Companies were required to submit progress reports to their respective governments. The code was discontinued in 1994. The Sullivan code demanded minimum standards of performance in terms of employment issues, and later laid down criteria for corporate social investment. After Sullivan dissociated himself from South Africa, the Sullivan code became a statement of principles around issues such as justice, education, community development, health and staff development, and was the forerunner of contemporary ideas of company social responsibility in South Africa.

In the early 1980s affirmative action was conceptualised in terms of putting knowledge and skills into black people so that they could function in a largely unchanged 'white' world – it was blacks who needed to fit in. In the early 1980s one company employed eighteen black graduates and, in conjunction with a local university, embarked on a six-month training programme. Topics covered included economics, accounting and etiquette. The new recruits were offered high salaries and were placed in supernumary positions, with no responsibility. Seventeen of the people left. For this particular company the lessons (which probably hold true today) were:

- staff reject black programmes;
- people want real jobs – training positions are ineffective;
- affirmative action needs to be integrated with all other systems;
- all staff should have access to development, which normally would be on the job;
- the encouragement of agreed behaviour through appraisal; and
- development should be seen as the dual responsibility of supervisor and those supervised.

Impact

The most noticeable and significant impact of affirmative action seemed to be on the nature of training within these organisations (sample: six institutions). Training programmes were open to all, but participants were mainly black, as a result of recruitment policy.

Training programmes in the organisation shifted from being entirely based on competency to being partly aimed at improving the environment. Generally, more human and financial resources were directed at competency-based training, while more emphasis was placed on training to change corporate culture: the affirmative environment. Change-management was a major focus for many of the organisations, with the objective to help individuals adjust to change, as well as to prepare managers to manage change.

Most of the companies had training menus, with a few companies operating joint training with international institutions. Two organisations secured overseas assignments to ensure that black staff were developed in more supportive environments. There was also an increased emphasis on Paterson A and B bands to upgrade the technical skills of staff, making them eligible for promotion. Only one of the organisations noticed a move towards experiential training, where the approach was to raise and resolve issues in departmental teams.

Most of the oil companies indicated that standards were not dropping. This they attributed to the fact that they were not engaged in tokenism and entry standards were not being dropped. One respondent suggested that dropping of standards was a nonsense, since many black people were in fact overqualified. He argued that entry criteria were more stringent and that in some cases managers used it as a strategy to exclude black applicants from applying for jobs. This overqualification and credibility was particularly evident with the employment of affirmative action managers.

Four of the organisations argued that supervisory capacity was being less affected by affirmative action than by gearing up managers to deal with a complex future which includes organisational change, affirmative action, changes in technology and increased competition. Only one organisation argued that there was a greater load in terms of development, but accepted that this was a short-term cost, and a longer-term benefit.

Two of the companies argued vehemently that they would not pay a premium for the services of black staff, while two companies conceded that they pay a premium of 15-20%. Another said that it resisted paying a premium for white staff in the past and therefore found it difficult to justify paying black staff more now.

Increasingly the performance of managers in relation to staff development was being assessed, with many companies continually reviewing their performance appraisal processes.

Mechanisms

The following mechanisms, interventions or strategies were in place to implement the policy:

- Affirmative action departments were generally located within the human resource department and seen as an integral part of the business planning process with managers setting objectives and devising plans of action for the achievement of objectives.
- Companies had various job titles to describe the affirmative action manager. Four companies had such managers, with the fifth planning to appoint one shortly.

- Four companies had mentorship programmes, with the mentor being responsible for creating opportunities for development.
- Four companies were targeting black african staff specifically. Only one of the companies was planning focused recruitment for women.
- Promotion was based on merit.
- All companies had fast-track development, with graduates having a personal development plan. The development plan identified the training required to make a person eligible for a management position within five years. Accelerated development was generally directed at black staff. Training needs were established on an individual basis.
- One company monitored black African staff from junior supervisory level upwards on a monthly basis.
- Two companies would only recruit people into real jobs, while a third said they tried to place people into real jobs as soon as possible.

One company had a trainee system in place, which required trainee staff to shadow more experienced staff. The trainee system involved job-rotation and the manager supervising the trainee also became the mentor. This model had variable success and only worked where the manager was committed. In this particular company performance appraisal became difficult, since the appraisal format did not explicitly assess managers in terms of staff development. It also became more difficult to obtain a realistic assessment of the rotating trainee's performance. This company was presently reviewing its performance evaluation process.

Another company had a system of development jobs where each incumbent had an individualised development plan, with a mentor who was responsible for creating opportunities for development, as well as a coach who was responsible for on the job training. A coach could be the direct supervisor or a co-worker. All areas were developed: cultural, behavioural and technical. Assessment sessions took place once a month with the incumbent, mentor, coach and affirmative action manager.

4.5 Coal

Amcoal and what was Randcoal (now merged with Trans Natal) were members of the Chamber of Mines. Amcoal subscribed to the Chamber's equal opportunity principles, which were established as a result of negotiations between the NUM and the Chamber of Mines. An affirmative action working group was established to reach consensus on an affirmative action policy, when the NUM tabled a proposal on affirmative action in the 1994 negotiations.

Randcoal, now part of Trans Rand, adopted the Black Management Forum's blueprint for affirmative action, as a guiding document, while Sasol was in the process of negotiating with its union. McPhail and Africoal also participated.

4.5.1 The Chamber of Mines' equal opportunity principles

- The first principle acknowledged that the broad notion of employment equity urgently needed to be addressed.
- The second principle suggested that it needed to be a cooperative framework of responsibilities constituting the state, employers and employees.

- The third principle acknowledged that an equal opportunity policy should be part of a progressive human resource policy which should maximise the potential and upliftment of employees.
- The fourth principle established the target groups, which included black people, women and the disabled.
- The fifth principle suggested mechanisms to effect the programme and included strategies such as 'fast-tracking', staff development, bridging, and adult education.
- The sixth principle confirmed that realistic and achievable objectives needed to be set internally and that a proper monitoring mechanism needed to be established.
- The seventh principle argued that equal opportunity policies would differ from company to company to ensure that the needs of each specific company was taken into account.

4.5.2 Randcoal

Randcoal saw affirmative action as a developmental process and as a short-term strategy to address the imbalances. It is not clear how the merger with Trans Natal has affected the affirmative action policy. Their policy contained the following elements:

- The target group was African black not coloured, Asian or women, with an emphasis on the development of internal staff.
- A centralised steering committee would be established to monitor the progress of affirmative action.
- An affirmative action steering committee for each mine, comprising labour, management and staff from the human resource department would be established.
- Industrial theatre productions and seminars would be used to sensitise white staff: the thrust would be that 'no white person would lose their jobs as a result of affirmative action'.
- A pool account to budget for supernumerary people would be established.
- Black people would be recruited into real jobs.
- There was a preparedness to pay a premium to retain black staff.
- Staff development would be a key performance area for each manager.
- The process would be driven by the Chief Executive Officer.
- Resources would be allocated for education, training and development.

Randcoal had its primary school and two black senior schools concentrating on adult basic education, skills training and life-skills training. The adult education programme was largely aimed at Paterson bands A-C2. NUM has negotiated twenty days of training leave for all its members, over and above annual leave and normal training leave, to enhance effectiveness in current positions. From Paterson C+ band interpersonal skills became the focus. Management development was aimed at people in Paterson bands D-F. In this category the cost of training became more expensive, since it took place in conjunction with business schools; in the case of management, development potential was assessed first.

4.5.3 MacPhail/Africoal

MacPhail did not have an official affirmative action policy. It was the philosophy of the company that people needed to be given opportunities, but that ultimately they needed to take responsibility for themselves. Promotion was based on merit and the organisation preferred to stay away from race and gender issues (Geertshuis 1994).

To contribute to the development of capacity amongst black traders, MacPhail entered into a joint venture with a number of black traders to form Africoal. MacPhail holds 51% of the shares and coal merchants 49%. Through the creation of a national marketing and buying organisation, MacPhail believes that it has empowered these small businesspeople by giving them access to better prices, higher quality and consistent supply, as well as by upgrading their management skills (MacPhail 1993).

4.6 Nuclear

Only one institution had an affirmative action policy in the nuclear sub-sector.

4.6.1 The Atomic Energy Corporation

The AEC saw employment equity as its vision, and affirmative action as 'an essential policy instrument aimed at redressing previous inequities' (AEC 1994). The policy contained the following elements to effect the programme:

- Target groups were black and women, with an emphasis on the development of internal staff.
- Recruitment, selection and promotion would be effected on the basis of potential and not experience alone.
- Affirmative action was a line responsibility and formed part of the business plan.
- Job-rotation was one mechanism to implement and allow women and black staff to gain experience.
- Interventions to facilitate the change process would be implemented throughout the organisation and coordinated by the Corporate Human Resources function.
- Senior managers and higher ranks would have affirmative action included in their key performance areas, supported by timebound quantifiable targets against which performance would be measured.
- Accountability of the programme lies with the Chief Executive Officer and the Management Board (AEC 1994).

4.7 Summary

There was a general awareness about affirmative action. Most companies either had affirmative action policies or were in the process of negotiating such policies. Except for the oil companies and Eskom, most institutions have not really started implementing programmes. The institutions that have grasped the nettle were those likely to have a predominantly black client base in the future.

The emphasis of many of the institutions was on black staff as opposed to women. Companies generally defined black to include African black, coloured and Asian.

Those institutions which had an affirmative action policy, generally had well developed, cohesive programmes. To what extent it was effective in practice was not, however, established.

The more common interventions included:

- the creation of an environment which facilitated performance and integration;
- the appointment of an affirmative action manager to effect and monitor the programme;
- accelerated development for black staff with potential and educational training opportunities for Paterson A and B bands;
- preferential recruitment, selection and promotion;
- explicit definition of roles and responsibilities affirmative action line function;
- mentorship.

Areas that were not common included:

- the realisation that real jobs were more effective than shadow jobs, trainee positions and job rotation;
- establishing staff development as a key performance area for each manager;
- the explicit recognition of the managerial expectations in performance.

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PROJECT DESCRIPTION

A major two year research project was launched by the Energy for Development Research Centre in April 1992. It aims to investigate policy options for widening access to basic energy services for the urban and rural poor in South Africa. Research papers are being produced in the following areas:

Background papers

Research outline

Integrated energy planning: a methodology for policy analysis and research

Development context for energy planning in South Africa

Background on South African energy system

Energy demand analysis

Energy demand in underdeveloped urban and rural areas

Rural areas

Energy for rural development: an introduction and overview

Energy and small-scale agriculture

Rural household energy supply options

Afforestation and woodland management

Remote area power generation options

Urban areas

Household energy supply in formal and informal urban settlements

Energy and informal sector production

Ancillary sector

Energy and mass transportation*

Key supply sector

Electricity distribution sector*

Cross-sectorial studies

Energy efficiency and conservation*

Energy and environment*

Southern Africa linkages*

Investment requirements and financing mechanisms*

Pricing policy*

Institutional analysis*

Policy options

A concluding document will draw together key policy conclusions

** The scope of these studies is restricted to energy issues concerning the urban and rural poor.*

EDRC

The Energy for Development Research Centre is located at the University of Cape Town. Its objectives are to study energy related problems of developing areas in Southern Africa, and possible ways to address them.

EDRC seeks to achieve its objectives by:

- undertaking research projects;
- running a specialist postgraduate programme to support research projects and to train personnel to contribute to this field;
- transferring relevant information to user groups by offering consulting services and running workshops, and through publishing books, journal papers, reports, leaflets and design and user manuals.

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Affirmative action in the energy sector

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